



## UPDATE: MAPPING BC'S LNG PROPOSALS

### PROJECTS STALL AS PROVINCIAL GOVERNMENT'S LIQUEFIED NATURAL GAS 'GOLD RUSH' BUSTS.

January 2018

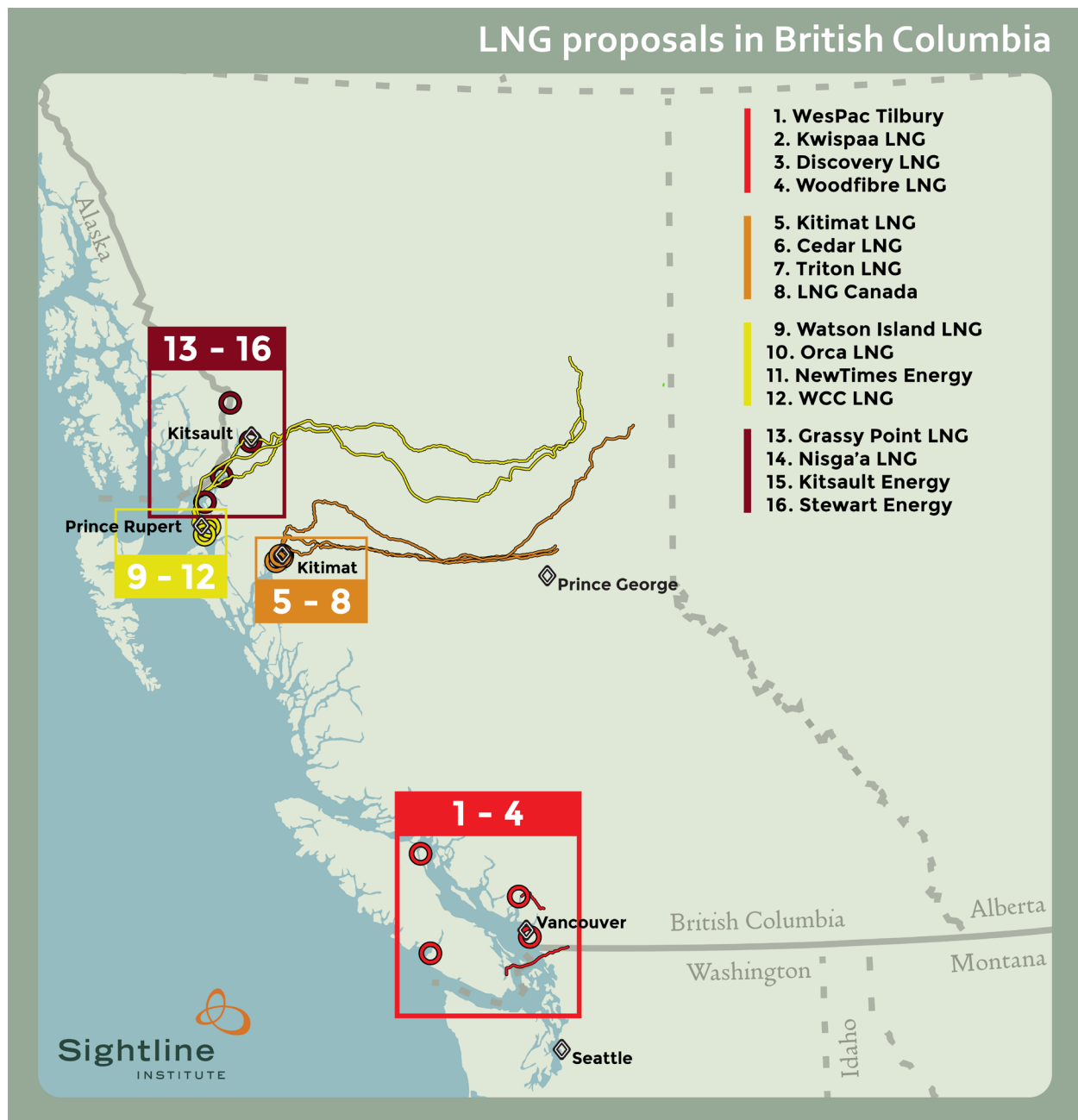
By Tarika Powell

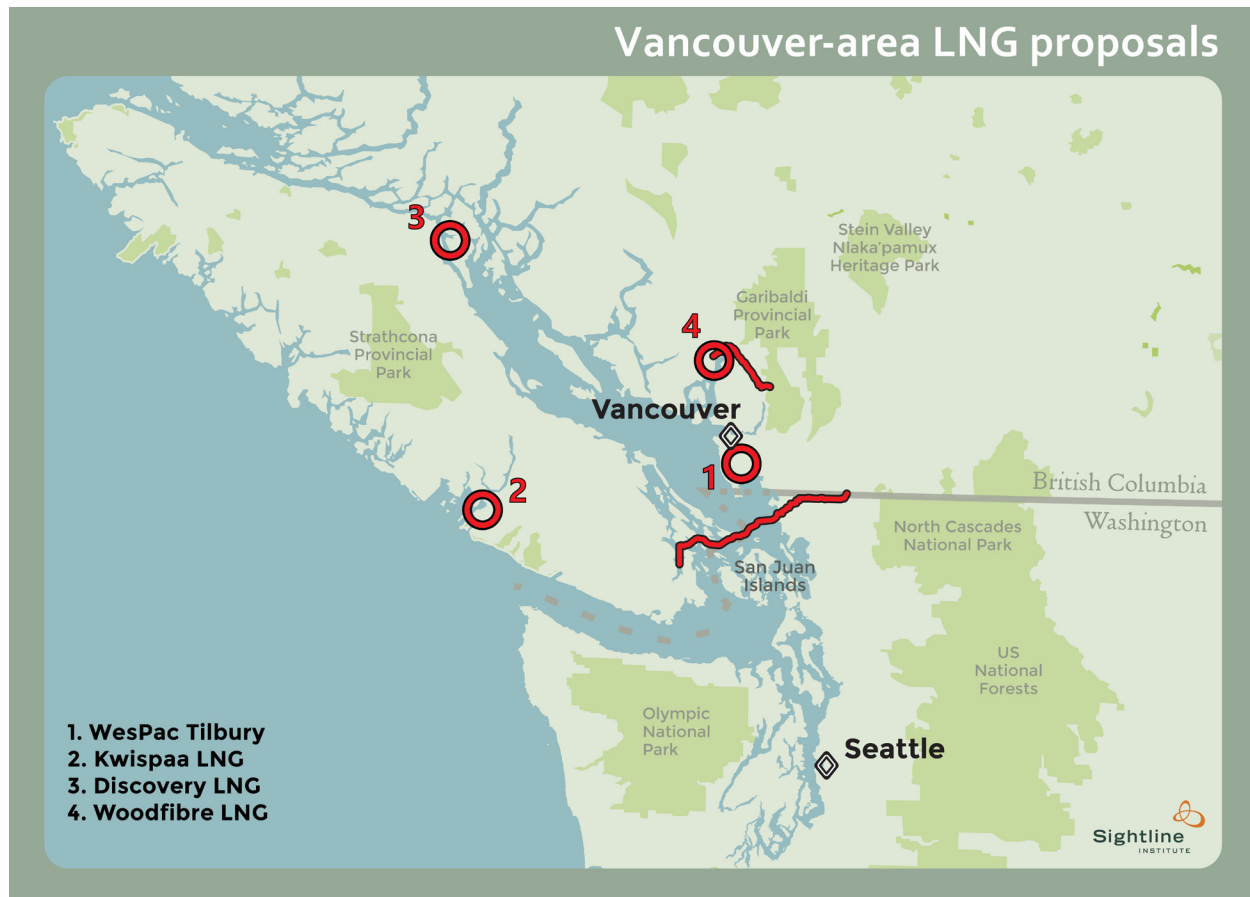
Over the past few years, communities in Oregon and Washington succeeded in fending off several proposals to build fracked fuel and petrochemical terminals. But British Columbia's political leaders took the opposite tack, singing a siren song to attract liquefied natural gas<sup>1</sup> (LNG) investors to the province's western shores. Former Premier Christy Clark's invitation lured would-be LNG exporters with the promise of fossil-fuel-friendly policies and cheap fracked gas from basins in the northeast of the province. Oil and gas companies the world over answered the call, proposing nearly two dozen LNG export facilities designed to ship the liquefied, fracked gas to Asia. The proposals would have collectively produced four times as much LNG as Qatar, the world's largest LNG exporter.<sup>2</sup>

But global LNG prices collapsed shortly after BC's LNG 'gold rush' began, dashing hopes for profitable LNG exports from the province. Most of the projects would require new pipelines to move gas from the distant Western Canadian Sedimentary Basin<sup>3</sup>, and low international LNG prices put this costly infrastructure out of financial reach.<sup>4</sup> Some of the projects and their pipelines have also run into public opposition over concerns that they would undermine the interests of numerous BC First Nations, increase emissions and tanker traffic, and harm critical salmon habitat.<sup>5</sup>

The provincial government hoped to have three LNG plants in operation by 2020,<sup>6</sup> rolling out benefits that included subsidized electricity rates for the planned facilities.<sup>7</sup> Further, Canada amended the National Energy Board Act so that natural gas export licenses could be extended from the previous limit of 25 years to 40

years.<sup>8</sup> Yet the odds of having any export facilities in operation by 2020 are still quite slim. Since Sightline first published a complete inventory of LNG export schemes in BC,<sup>9</sup> four LNG projects have been cancelled: Prince Rupert LNG, Aurora LNG, and Pacific NorthWest LNG, all in the Prince Rupert area; and Malahat LNG on Vancouver Island. Sixteen LNG proposals, detailed below, are still standing---but most of them are standing still.





## LNG on the Salish Sea (Projects 1-4)

### 1. Tilbury LNG expansion and Wespac jetty<sup>10</sup>

Two projects are underway at FortisBC's 47-year-old Tilbury LNG plant at Delta, BC, just south of Vancouver.<sup>11</sup> FortisBC is expanding the plant's production capacity, and Wespac hopes to build a new marine jetty adjacent to the plant. Existing Fortis BC pipelines will continue to feed gas to the facility.<sup>12</sup> FortisBC began the \$400 million production capacity expansion in 2014, adding liquefaction equipment and a second LNG storage tank.<sup>13</sup> In August 2017, a contractor was injured in an explosion at the site, temporarily halting construction.<sup>14</sup>

A subsidiary of US-based WesPac Midstream is undertaking the jetty project, which would allow LNG carriers to load LNG for transport to "regional and offshore markets"<sup>15</sup> and to fuel marine vessels such as BC Ferries.<sup>16</sup> The project backers aim to sell 3 million metric tons per year from the facility.<sup>17</sup> FortisBC had inked an 800,000-metric-ton-per-year LNG export agreement with Hawaiian Electric,<sup>18</sup> but the deal fell through in mid-2016,<sup>19</sup> likely affecting the finances of the jetty project. FortisBC is now seeking other partners.<sup>20</sup>

Although the project backers claimed the facility would supply regional and offshore markets, it shipped its first LNG export to China in November 2017 as part of a pilot project to test the feasibility of small-scale LNG exports to global markets.<sup>21</sup> The single-container shipment was not a bulk LNG export, but FortisBC is considering a larger expansion that would include export facilities.<sup>22</sup>

## 2. Kwispaa LNG

Vancouver-based Steelhead LNG initially planned for two LNG projects on Vancouver Island: Malahat LNG, located on Malahat Nation-owned territory north of Victoria, and Sarita LNG, on Huu-ay-aht First Nations lands near Port Alberni.<sup>23</sup> Steelhead later changed the name of the Sarita LNG proposal to Kwispaa LNG.<sup>24</sup>

Canada's National Energy Board (NEB) granted Steelhead export licenses for 6 million metric tons per year from Malahat LNG and 24 million metric tons per year from Kwispaa LNG.<sup>25</sup> The Malahat facility would rely on natural gas delivered by the Island Gas Connector, an 81-mile pipeline proposed by Williams Pipeline Northwest.<sup>26</sup> The new pipeline would begin in Washington at Northwest Pipeline's Canadian gas interconnect at Sumas, run along the floor of the Salish Sea for nearly 50 miles, and connect to the proposed Malahat LNG facility. The pipeline would traverse the treaty-protected fishing areas of several tribes, including the Lummi Nation.<sup>27</sup> Steelhead has not announced pipeline plans for the Kwispaa LNG, but speculates that it could use a combination of existing and new pipelines to transport gas to that facility.<sup>28</sup>

In March 2017, the Huu-ay-aht First Nations voted to approve a co-management development relationship for Kwispaa LNG.<sup>29</sup> Steelhead intended to make an investment decision on Malahat in 2018,<sup>30</sup> but in late 2017, the company instead announced that it was cancelling the Malahat project.<sup>31</sup> The company did not confirm that the Island Gas Connector pipeline was cancelled.<sup>32</sup> In an email to Sightline, a company representative said, "Steelhead LNG and Huu-ay-aht First Nations are currently looking at other, more direct route options to transport natural gas from northern BC and Alberta to the Kwispaa LNG project."

## 3. Discovery LNG<sup>33</sup>

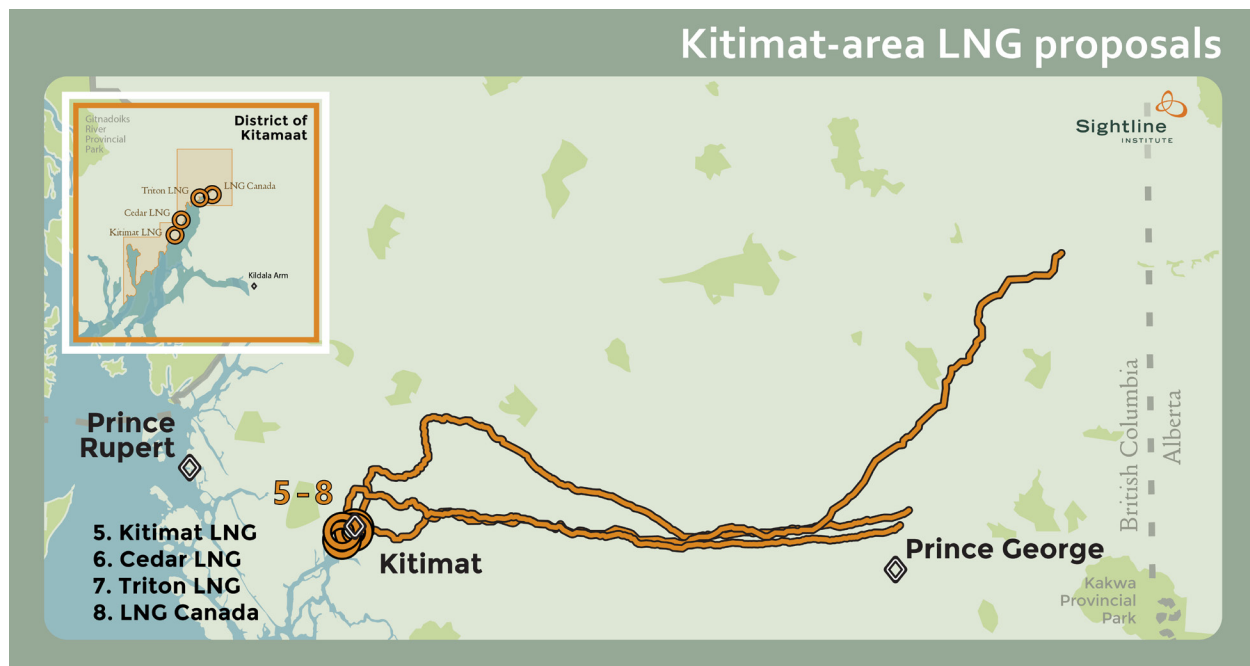
Discovery LNG was proposed by an Alberta subsidiary of Texas-based Quicksilver Resources, which went bankrupt in early 2015.<sup>34</sup> Now calling themselves Rockyview Resources, the project backers propose to build a 20-million-metric-ton-per-year LNG facility on the north side of the Campbell River.<sup>35</sup> In May 2016, the National Energy Board issued a 25-year export license for the project.<sup>36</sup> Rockyview has not yet identified a pipeline route to the facility, but says it would require about

300 kilometers of new pipeline to transport gas from the lower mainland to the Campbell River site.<sup>37</sup> Rockyview has lowered its expectations on how quickly the project would move, pushing out the facility's operations date goal to 2030.<sup>38</sup> Rockyview is still seeking joint venture partners.<sup>39</sup>

#### **4. Woodfibre LNG<sup>40</sup>**

Woodfibre LNG is proposed for the shores of Howe Sound, southwest of Squamish, BC.<sup>41</sup> The National Energy Board (NEB) granted Woodfibre a 25-year export license for 2.1 million metric tons per year, and later granted the company's request for a 40-year license.<sup>42</sup> The LNG plant would obtain its gas supplies from the Eagle Mountain-Woodfibre Gas Pipeline (EGP) Project,<sup>43</sup> a proposed expansion of a 47-kilometer portion of existing FortisBC pipeline.<sup>44</sup> In 2016, Guangzhou Gas Group agreed to buy one million metric tons of the plant's capacity for 25 years,<sup>45</sup> starting in 2020, but the remaining quantity still lacks a buyer.<sup>46</sup> The project's finances hinge in part on subsidized electricity provided by BC Hydro, the provincial utility.<sup>47</sup>

In November 2015, Woodfibre LNG's parent company, Pacific Oil & Gas Limited (which is part of the Singapore-based RGE Group), authorized funds to allow the project to proceed.<sup>48</sup> Roughly two years later, Woodfibre pushed back its construction decision to 2018, citing low global natural gas prices.<sup>49</sup>



## Kitimat Projects (5-8)

### 5. Kitimat LNG<sup>50</sup>

Kitimat LNG is a joint venture between oil giant Chevron and Australian oil and gas corporation Woodside Energy.<sup>51</sup> Like Shell and Exxon, Chevron is one of the top players in the fracked natural gas market.<sup>52</sup> Kitimat LNG has been in development since 2004 under the development name KM LNG Operating Partnership. The ownership structure has changed several times since the project began: the partnership was originally led by the Canadian arm of Texas-based Apache Corporation.<sup>53</sup> The planned facility would be located next door<sup>54</sup> to another proposed LNG project at Bish Cove on the Douglas Channel, on land leased from the Haisla Nation.<sup>55</sup> Chevron's proposed 480-kilometer Pacific Trail Pipeline would deliver gas to the facility from the Liard and Horn River basins.<sup>56</sup> Chevron and Woodside hope to export 10 million metric tons of LNG per year from the liquefaction plant.

But Chevron Canada has yet to make a final investment decision.<sup>57</sup> In mid-2017 the pace of the project was reduced due to falling energy prices.<sup>58</sup> In a presentation to the Kitimat Council, Kitimat LNG representatives said they are seeking to lower costs to a competitive range and acquire firm contracts before making a final investment decision.<sup>59</sup> The company is re-evaluating its original project design in order to drive down costs, and contends that a BC LNG project could become globally competitive "sometime in the middle of the next decade."<sup>60</sup>



## 6. Cedar LNG

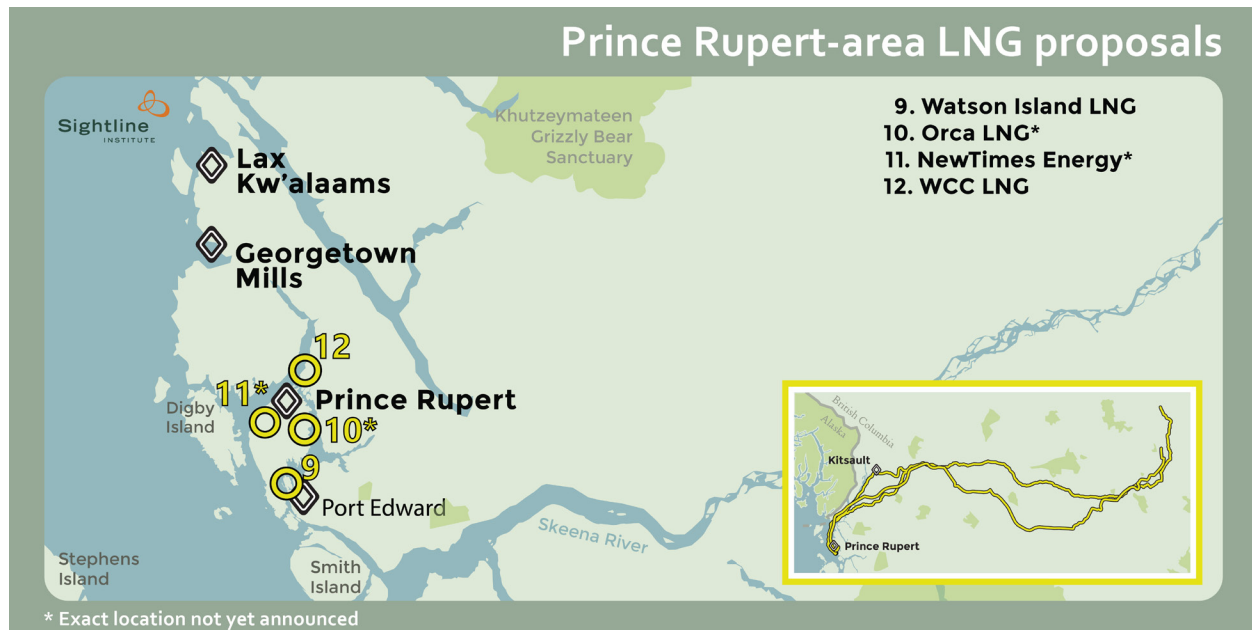
Backed by the Haisla Nation, the still-speculative Cedar LNG project would build several floating LNG plants at Bish Cove on the northern Douglas Channel, close to Kitimaat Village.<sup>61</sup> The project backers submitted applications for three LNG terminals at this location: Cedar 1, Cedar 2, and Cedar 3. The NEB granted an export license for 6.4 million metric tons per year from Cedar 1, but deemed the export license applications for Cedar 2 and Cedar 3 incomplete.<sup>62</sup> Project backers have not settled on a pipeline route to supply the project, but say they have entered the “advanced stages of negotiating and drafting definitive agreements with the major gas producers and pipeline transmission companies.”<sup>63</sup> There have been no recent updates on the project, but if it does not pan out, the Haisla will still have some stake in LNG development through their benefits agreement with the backers of Kitimat LNG.<sup>64</sup>

## 7. Triton LNG

Altagas originally planned two LNG facilities for Kitimat: Triton LNG and Douglas Channel LNG. In early 2016, however, Altagas halted all further development on Douglas Channel LNG, and the company has also put Triton on the back burner.<sup>65</sup> Triton LNG's joint venture partner, Japanese oil company Idemitsu Kosan, “suspended all efforts” on the project in mid-2016.<sup>66</sup> (At the time, Altagas said that both projects were “on hold right now,” but Douglas Channel LNG is generally considered to be cancelled.<sup>67</sup>) If built, Triton would probably be located on the same lot slated for Douglas Channel LNG,<sup>68</sup> and would link up to the proposed expansion of Altagas's Pacific Northern Gas pipeline.<sup>69</sup> If Triton does not move forward, Altagas will still have some hope for exporting a natural gas product, as the company is planning to build a propane export facility on Ridley Island near Prince Rupert.<sup>70</sup>

## 8. LNG Canada<sup>71</sup>

Shell is one of the biggest players in the global LNG market, so it's no surprise that the corporation hoped to expand its holdings with a major facility in BC.<sup>72</sup> Other big names attached to the LNG Canada project include PetroChina, China's biggest oil producer; South Korea's KOGAS, one of the world's largest LNG importers; and Mitsubishi, which invests in LNG production in “host countries” and acts as an import agent for Japanese customers.<sup>73</sup> The companies announced in July 2016 that they would indefinitely delay a final investment decision,<sup>74</sup> and in mid-2017, announced that a final investment decision would be made “in the next 18 months or so.”<sup>75</sup> If the proposal resumes, the backers hope to produce 24 million metric tons of LNG per year, using gas from the proposed 670-kilometer Coastal GasLink pipeline leading from Dawson Creek in northeastern BC.<sup>76</sup> The National Energy Board has extended LNG Canada's export license from 25 to 40 years.<sup>77</sup>



## LNG Projects at Prince Rupert (9-12)

### 9. Watson Island LNG

The Watson Island LNG Corporation formed in 2014 to pursue three natural gas-based projects in Northern BC: a polypropylene (plastics) manufacturing facility, an LNG export facility, and a propane export facility.<sup>78</sup> The proposed LNG facility would produce one million metric tons of LNG per year.<sup>79</sup> The City of Prince Rupert entered an exclusivity agreement with the project backer in 2014 to site the facility on Watson Island near Port Edward.<sup>80</sup> But before the city can complete the sale, it must settle a lawsuit over the title to the lands.<sup>81</sup> The City must also remediate industrial chemicals at the site, a \$50 million undertaking.<sup>82</sup> There has been no significant news on the project since 2014. In fact, the project's website is no longer online. However, the project backer has not confirmed a project cancellation.

### 10. Orca LNG

Orca LNG doesn't yet have an exact location planned, nor has it released a potential pipeline route. Precious little is known about the project backers, who are based in Cypress, Texas, or the proposal itself.<sup>83</sup> Even the project's website is just a single placeholder page with no information other than a contact email.<sup>84</sup> The NEB granted the project an export license for 24 million metric tons per year.<sup>85</sup> The project proponents plan to operate six floating facilities—converted barges—in the vicinity of Prince Rupert, and each would be able to produce four to five million



metric tons of LNG per year.<sup>86</sup> Orca LNG is allegedly in discussion with “several pipeline companies” about using either existing infrastructure or constructing a dedicated pipeline to transport gas from the Western Canadian Sedimentary Basin.<sup>87</sup>

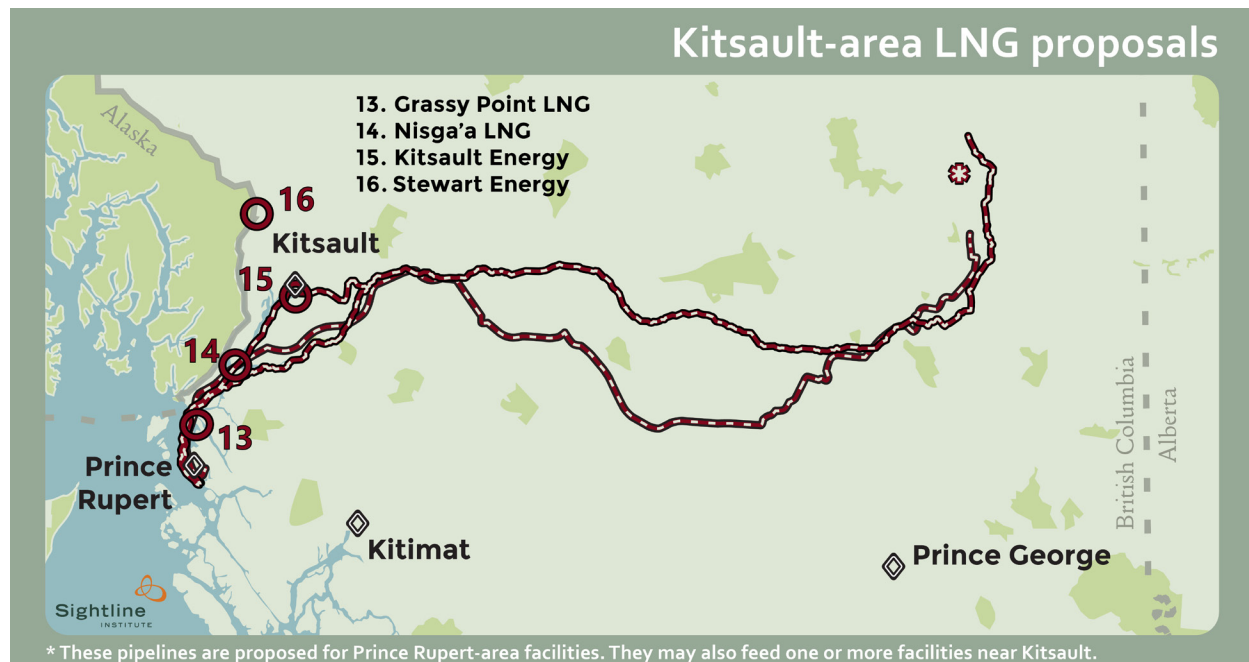
## 11. NewTimes Energy LNG

Project backer NewTimes Energy hopes to produce 12 million metric tons of LNG per year at this plant.<sup>88</sup> NewTimes Energy LNG would be located “in the vicinity of Prince Rupert,” though an exact location has not yet been announced. The NewTimes Energy website includes pictures of two proposed pipelines, the Prince Rupert Gas Transmission and Pacific Northern Gas pipelines, though the company does not appear to have reached a supply agreement with either one. NewTimes Energy was a late entrant to the crowded LNG field, and there has been no news on the project since the NEB approved its export license in 2016.<sup>89</sup>

## 12. WCC LNG Project<sup>90</sup>

WCC LNG is backed by Exxon Mobil and Imperial Oil, an Alberta-based petroleum company partially owned by Exxon.<sup>91</sup> The oil giant plans to site the facility at Tuck Inlet, less than ten kilometers north of Prince Rupert. The proposed site abuts the Woodworth Lake Conservancy,<sup>92</sup> which protects the domestic water supply for the city of Prince Rupert and safeguards important salmon spawning grounds. Exxon hopes the facility will produce up to 30 million metric tons of LNG per year. The project may use one of the pipelines associated with other LNG proposals in the Prince Rupert area.

The NEB has approved WCC LNG's application to extend its export license from 25 years to 40 years, but Exxon and Imperial have not made a final investment decision.<sup>93</sup> In fact, the project backers announced in December 2017 that the project would be “moving at a slower pace” throughout 2018 due to market conditions and economic uncertainties, and closed the project's Prince Rupert office.<sup>94</sup>



## Northernmost projects (13-16)

### 13. Grassy Point LNG

Project backer Woodside Energy,<sup>95</sup> an Australian oil and gas company, hopes to produce 20 million metric tons of LNG per year at the proposed Grassy Point LNG facility.<sup>96</sup> It would be located 30 kilometers north of Prince Rupert, across the bay from the Lax Kw'alaams First Nation's reserve land.<sup>97</sup> Woodside is considering either an onshore LNG facility or a floating facility. The pipeline route has not yet been determined, but the feed gas is expected to be transported from the Western Canadian Sedimentary Basin by third-party pipeline. In a June 2016 company report, Woodside said it is continuing to "investigate the potential" of developing the facility.<sup>98</sup> The company has likely placed the facility on the back burner while it figures out its recent acquisitions, which include a joint partnership in the proposed Kitimat LNG facility (number 5, above).<sup>99</sup> A 2017 Investor Briefing gave updates on the Kitimat facility but none on Grassy Point.<sup>100</sup>

### 14. Nisga'a LNG

The Nisga'a Nation has offered Nation-owned land as potential LNG project development sites, and it is also considering developing its own LNG project.<sup>101</sup> The still-speculative Nisga'a LNG would be located on the Portland Inlet waterway, near the Nass River,<sup>102</sup> and would receive gas from the proposed Prince Rupert Gas Transmission pipeline.<sup>103</sup> The pipeline would traverse almost 100 kilometers

of Nisga'a lands, so it would be the most convenient feeder for the Nation's own LNG project. The project backers have yet to apply for an NEB export license, and the quantity they hope to export is unknown.<sup>104</sup> Though the Nation began seeking investors in 2014, thus far it has not attracted any.<sup>105</sup>

## 15. Kitsault Energy<sup>106</sup>

Kitsault Energy would be located at the ghost town Kitsault, 85 miles north of Prince Rupert.<sup>107</sup> The project backer is self-made millionaire and philanthropist Krishnan Suthanthiran, who purchased the former mining town for about \$6 million in 2005.<sup>108</sup> Kitsault is at the head of Alice Arm, the eastern arm of Observatory Inlet.<sup>109</sup> The project's export license application pondered an approximately 600-kilometer pipeline—most likely the backer hopes to enter a contract with either the proposed Prince Rupert Gas Transmission Project or the proposed Westcoast Connector Gas Transmission Project.<sup>110</sup> Kitsault Energy's 20-million-metric-ton-per-year LNG project is still speculative, and there have been no major developments of late.<sup>111</sup>

## 16. Stewart Energy LNG

Canada Stewart Energy Group, a partnership between a construction executive and an oil entrepreneur,<sup>112</sup> aims to build the Stewart Energy LNG facility near Stewart, British Columbia—a small district of fewer than 500 people near the Alaska border, at the end of the Portland Canal.<sup>113</sup> The project backers hope to export 30 million metric tons of LNG per year. Stewart Energy would start with a floating facility, and then build a land-based plant to expand production. The NEB granted the project its export license in early 2016.<sup>114</sup> The export license application indicated that Stewart Energy intends to build a new pipeline to the remote location and operate it as a joint venture with a third party pipeline company, but no pipeline agreement has been announced.<sup>115</sup> The application also claimed that Stewart Energy had entered into preliminary supply agreements with “five major energy groups” in China, and it named Beijing-based Great United Petroleum Holding Company as one of its strategic partners. There have been no recent updates on the project.

**Editor's note:** Since this report was first published, four BC LNG projects have been cancelled by the project backers: Malahat LNG, Pacific NorthWest LNG, Prince Rupert LNG, and Aurora LNG. Three of the cancelled projects had associated pipelines. Steelhead has not confirmed the cancellation of the Island Gas Connector that was to feed Malahat LNG. TransCanada is reviewing its options for the Prince Rupert Gas Transmission Project after the cancellation of Pacific Northwest LNG.<sup>116</sup> Finally, Enbridge has acquired Spectra, and is trying to find another partner project for the Westcoast Connector pipeline that was associated with Prince Rupert LNG.<sup>117</sup> The maps in this updated report retain all three of these pipelines.

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**Tarika Powell** is a Senior Research Associate at Sightline Institute, where she works on energy policy and infrastructure. You can reach her at [tarika@sightline.org](mailto:tarika@sightline.org).

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## Endnotes

1. US Energy Information Administration, "Natural Gas Explained: Liquefied Natural Gas," [http://www.eia.gov/energyexplained/index.cfm?page=natural\\_gas\\_lng](http://www.eia.gov/energyexplained/index.cfm?page=natural_gas_lng), accessed February 21, 2017.
2. Tarika Powell, "BC Wants to Produce Four Times as Much LNG as World's Largest Exporter," Sightline Institute, March 15, 2017, <http://www.sightline.org/2017/03/15/bc-wants-to-produce-four-times-as-much-lng-as-worlds-largest-exporter/>.
3. Natural Resources Canada, "Alberta's Shale and Tight Resources," <http://www.nrcan.gc.ca/energy/sources/shale-tight-resources/17679>, accessed February 21, 2017.
4. The Oxford Institute for Energy Studies, "LNG Plant Cost Escalation," February 2014, <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2014/02/NG-83.pdf>.
5. Tarika Powell, "BC's Carbon Pollution Could double with LNG Plants," Sightline Institute, June 7, 2017, <http://www.sightline.org/2017/06/07/bcs-carbon-pollution-could-double-with-lng-plants/>. Tarika Powell, "LNG 'Giants of the Sea' Headed for BC Waters," Sightline Institute, May 23, 2017, <http://www.sightline.org/2017/05/23/lng-giants-of-the-sea-headed-for-bc-waters/>.
6. British Columbia Ministry of Energy and Mines, "Liquefied Natural Gas: A Strategy for BC's Newest Industry," February 3, 2012, [http://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/natural-gas-oil/strategy\\_lng.pdf](http://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/natural-gas-oil/strategy_lng.pdf).
7. Matt Kielyka, "BC Hydro customers will subsidize LNG: Sierra Club," Metro News, March 27, 2017, <http://www.metronews.ca/news/vancouver/2017/03/27/bc-hydro-customers-will-subsidize-lng-sierra-club.html>, accessed December 11, 2017. BC Government, "Terms finalized for LNG customers using BC Hydro system," November 4, 2014, <https://news.gov.bc.ca/stories/terms-finalized-for-lng-customers-using-bc-hydro-system>, accessed December 11, 2017. BC Hydro, "New eDrive electricity rate for LNG facilities," [https://www.bchydro.com/news/press\\_centre/news\\_releases/2016/new-edrive-electricity-rate-for-lng-facilities.html](https://www.bchydro.com/news/press_centre/news_releases/2016/new-edrive-electricity-rate-for-lng-facilities.html), accessed December 11, 2017.

8. Canadian National Energy Board Act: Regulations Amending the National Energy Board Act Part VI (Oil and Gas) Regulations, Canada Gazette Part II: Vol. 149, August 12, 2015, <http://www.canadagazette.gc.ca/rp-pr/p2/2015/2015-08-12/html/sor-dors212-eng.html>, accessed December 11, 2017. Karen A. Salmon, et. al., "2016 Year in Review: Top 10 Regulatory Decisions and Trends of Import to the Canadian Energy Industry," BLG Energy Law Blog, January 17, 2017, <http://blog.blg.com/energy/Pages/Post.aspx?PID=275>, accessed December 7, 2017.
9. Tarika Powell, "Mapping BC's LNG Proposals," Sightline Institute, March 8, 2017, [http://www.sightline.org/research\\_item/maps-british-columbia-lng-proposals/](http://www.sightline.org/research_item/maps-british-columbia-lng-proposals/).
10. Wespac Midstream, "Wespac LNG Marine Jetty at Tilbury Island," <http://wespectilbury.ca/overview/>, accessed February 21, 2017.
11. Fortis BC Inc., "Doug Stout Op Ed: Tilbury LNG facility is looking at further expansion," June 26, 2015, <https://www.fortisbc.com/MediaCentre/NewsReleases/2015/Pages/Doug-Stout-Op-Ed-Tilbury-LNG-facility-is-looking-at-further-expansion.aspx>. FortisBC Inc., "Tilbury LNG Facility," <https://www.fortisbc.com/About/AboutNaturalGas/SupplyStorage/Pages/Tilbury-LNG-Facility.aspx>, accessed February 21, 2017.
12. FortisBC Inc., "Service Areas," <https://www.fortisbc.com/About/ServiceAreas/Pages/default.aspx>, accessed February 21, 2017.
13. FortisBC Inc., "FortisBC starts construction of expanded Tilbury LNG Facility," October 21, 2014, <https://www.fortisbc.com/MediaCentre/NewsReleases/2014/Pages/FortisBC-starts-construction-of-expanded-Tilbury-LNG-Facility.aspx>.
14. Chad Pawson, "At least 1 worker injured after 'ignition' at Tilbury LNG facility in Delta, B.C.," CBC News, August 20, 2017, <http://www.cbc.ca/news/canada/british-columbia/tilbury-lng-ignition-worker-injured-1.4255218>, accessed December 4, 2017. Paula Baker, "Worker injured in Tilbury Island LNG facility fire," Global News, August 21, 2017, <https://globalnews.ca/news/3684409/worker-injured-in-tilbury-island-lng-facility-fire/>, accessed December 4, 2017.
15. WesPac Midstream, "Tilbury Marine Jetty (Delta, BC)," <http://wespac.com/development/representative-projects/tilbury-marine-jetty/>, accessed February 21, 2017.
16. FortisBC Inc., "FortisBC finalizes LNG supply agreement with BC Ferries to fuel new vessels," February 2, 2015, <https://www.fortisbc.com/MediaCentre/NewsReleases/2015/Pages/FortisBC-finalizes-LNG-supply-agreement-with-BC-Ferries-to-fuel-new-vessels.aspx>.
17. BC Government, "BC LNG Projects: WesPac LNG Marine Jetty," <http://lnginbc.gov.bc.ca/tile/wespac/>, accessed February 21, 2017.
18. FortisBC Inc., "Fortis Inc. enters in Liquefied Natural Gas Supply Agreement with Hawaiian Electric," May 19, 2016, <https://www.fortisbc.com/MediaCentre/NewsReleases/2016/Pages/Fortis-Inc--enters-in-Liquefied-Natural-Gas-Supply-Agreement-with-Hawaiian-Electric.aspx>.
19. Laura Brooks, "FortisBC seeks new customers for Tilbury LNG output after Hawaii deal falters," Platts, July 21, 2016, <http://www.platts.com/latest-news/natural-gas/austin-texas/fortisbc-seeks-new-customers-for-tilbury-lng-21050789>.
20. Gordon Hoekstra, "Collapse of Hawaiian utility merger a setback for B.C.'s LNG exports," Vancouver Sun, July 19, 2016, <http://vancouversun.com/business/energy/collapse-of-hawaiian-utility-merger-a-setback-for-b-cs-lng-exports>.
21. Nelson Bennett, "First LNG export from BC headed for China," Business In Vancouver, November 22, 2017, <https://www.biv.com/article/2017/11/first-lng-export-bc-headed-china/>,



- accessed December 4, 2017. Julie Gordon, "Canada's first LNG export to China on its way by container," Reuters, November 22, 2017, <https://www.reuters.com/article/canada-lng-china/canadas-first-lng-export-to-china-on-its-way-by-container-idUSL1N1NS2A0>, accessed December 4, 2017.
22. Geoffrey Morgan, "BC's LNG dream comes alive with first-ever natural gas shipment to China," Financial Post, November 22, 2017, <http://business.financialpost.com/commodities/b-c-s-lng-dream-comes-alive-with-first-ever-natural-gas-shipment-to-china>, accessed December 4, 2017. Bennett, "First LNG export." Gordon, "Canada's first LNG export."
  23. Steelhead LNG (Salish) Ltd., "Sarita Bay Project FAQ," <http://www.steelheadlng.com/sarita-bay-project-faq/>, accessed February 21, 2017.
  24. Steelhead LNG, "Malahat LNG Project Update," December 1, 2017, <http://malahatlng.com/wp-content/uploads/2017/11/Malahat-LNG-project-update-Dec-1-FINAL.pdf>, accessed December 4, 2017. Huu-ay-aht First Nations, "Cultural name – Kwispaa – chosen for LNG project," November 20, 2017, <https://huuayaht.org/2017/11/20/cultural-name-kwispaa-chosen-for-lng-project/>, accessed December 4, 2017.
  25. Steelhead LNG (Salish) Ltd., "Steelhead LNG export licenses for Malahat LNG and proposed project at Sarita Bay approved by National Energy Board," October 2, 2015, <http://www.steelheadlng.com/steelhead-lng-export-licences-for-malahat-lng-and-proposed-project-at-sarita-bay-approved-by-national-energy-board/>.
  26. IslandGas, "Island Gas Connector: Maps and Facilities," <http://islandgasconnector.com/maps-facilities/>, accessed February 21, 2017.
  27. Eric de Place, "Fracked Gas at Cherry Point and Vancouver Island: An Introduction," Sightline Institute, June 8, 2016, <http://www.sightline.org/2016/06/08/fracked-gas-at-cherry-point-and-vancouver-island-an-introduction/>.
  28. Steelhead LNG (Salish) Ltd., "Proposed Sarita LNG Project: Project Information," <http://www.steelheadlng.com/project-information/>, accessed February 21, 2017.
  29. Andrew Nikiforuk, "Sarita Bay LNG Vote Came with Promise of Multimillion-Dollar Education Fund," The Tyee, April 6, 2017, <https://thetyee.ca/News/2017/04/06/Sarita-Bay-LNG-Vote/>, accessed December 4, 2017. Rafferty Baker, "Steelhead LNG project gets early OK from Huu-ay-aht Nation," CBC News, March 27, 2017, <http://www.cbc.ca/news/canada/british-columbia/steelhead-lng-sarita-project-huu-ay-aht-vote-1.4043292>, accessed December 5, 2017.
  30. Steelhead LNG (Salish) Ltd., "Malahat LNG: The Project," <http://malahatlng.com/>, accessed February 21, 2017.
  31. Hugo Wong, "Steelhead LNG terminal no longer planned for Saanich Inlet," Victoria News, December 1, 2017, <https://www.vicnews.com/news/steelhead-lng-terminal-no-longer-planned-for-saanich-inlet-said-central-saanich-mayor/>. Michael D. Reid, "Malahat LNG Project Scrapped," Times Colonist, December 2, 2017, <http://www.timescolonist.com/news/local/malahat-lng-project-scrapped-1.23111355>, accessed December 4, 2017. Steelhead LNG, "Malahat LNG Project Update," December 1, 2017, <http://malahatlng.com/wp-content/uploads/2017/11/Malahat-LNG-project-update-Dec-1-FINAL.pdf>, accessed December 4, 2017.
  32. Steelhead LNG, "Malahat LNG Project Update," December 1, 2017, <http://malahatlng.com/wp-content/uploads/2017/11/Malahat-LNG-project-update-Dec-1-FINAL.pdf>, accessed December 4, 2017.



33. Rockyview Resources Inc., "Discovery LNG: Project Details," <http://www.discoverylng.com/project-details/>, accessed February 21, 2017.
34. Max B. Baker, "Quicksilver Resources sold for \$245 million on auction block," Star-Telegram, January 23, 2016, <http://www.star-telegram.com/news/business/article56242580.html>.
35. BC Government, "B.C. LNG Projects: Discovery LNG," <http://lnginbc.gov.bc.ca/tile/discovery-lng/>, accessed February 21, 2017.
36. National Energy Board, "A77173 National Energy Board – Letter and License GL-311 – Quicksilver Resources Canada Inc.," May 26, 2016, <https://apps.neb-one.gc.ca/REGDOCS/Item/View/2982374>, accessed December 4, 2017.
37. Rockyview Resources Inc., "Discovery LNG: FAQ," <http://www.discoverylng.com/project-details/faq/>, accessed February 21, 2017. Ryan Stuart, "Prosperity creator or pipe dream?", Douglas Magazine, December/January 2014, pages 36-39.
38. J. R. Rardon, "Quicksilver bankruptcy deals blow to LNG terminal," Campbell River Mirror, March 19, 2015, <http://www.campbellrivermirror.com/news/296916741.html>.
39. Stuart, "Prosperity creator."
40. Woodfibre LNG, <http://www.woodfibrelng.ca/>.
41. Woodfibre LNG, "Woodfibre LNG Project: Site Activities," <http://www.woodfibrelng.ca/wp-content/uploads/2016/08/SiteActivites.png>.
42. National Energy Board, "A80312 Woodfibre LNG Export Pte. Ltd. – Application for a license to authorize exportation of natural gas," October 27, 2016, <https://apps.neb-one.gc.ca/REGDOCS/Item/View/3080702>. National Energy Board, "A84304 National Energy Board – Letter and License GL-340 – Woodfibre – LNG Exportation Application, June 19, 2017, <https://apps.neb-one.gc.ca/REGDOCS/Item/View/3080702>, accessed December 4, 2017.
43. FortisBC, "EGP – Gas Pipeline Route (Proposed and Current)," <https://talkingenergy.ca/infographics/egp-gas-pipeline-route-proposed-and-current>, accessed February 21, 2017.
44. FortisBC, "Eagle Mountain – Woodfibre Gas Pipeline Project," <https://www.fortisbc.com/About/ProjectsPlanning/GasUtility/NewOngoingProjects/EagleMountainWoodfibreGasPipelineProject/Pages/default.aspx>, accessed February 21, 2017.
45. Jennifer Thuncher, "Woodfibre announces major supply agreement with Chinese gas company," Business In Vancouver, May 12, 2016, <https://www.biv.com/article/2016/5/woodfibre-announces-major-supply-agreement-chinese/>.
46. Woodfibre LNG, Project Newsletter, Volume 3, Issue 1, [http://www.woodfibrelng.ca/wp-content/uploads/2016/05/WF16\\_16-Newsletter\\_WEB.pdf](http://www.woodfibrelng.ca/wp-content/uploads/2016/05/WF16_16-Newsletter_WEB.pdf).
47. BC Ministry of Energy and Mines, "New eDrive electricity rate for LNG facilities," November 4, 2016, [https://www.bchydro.com/news/press\\_centre/news\\_releases/2016/new-edrive-electricity-rate-for-lng-facilities.html](https://www.bchydro.com/news/press_centre/news_releases/2016/new-edrive-electricity-rate-for-lng-facilities.html). Paul Ramsey, "LNG eDrive is a massive subsidy," Paul Ramsey Blog, November 4, 2016, <http://blog.cleverelephant.ca/2016/11/edrive.html>.
48. Woodfibre LNG, "Parent company authorizes Woodfibre LNG to proceed with project," November 4, 2016, <http://www.woodfibrelng.ca/parent-company-authorizes-woodfibre-lng-to-proceed-with-project/>, accessed December 8, 2017.
49. Julie Gordon, "Small Canadian LNG project delayed to 2018 as costs bite," Reuters, October 24, 2017, <https://www.reuters.com/article/canada-lng/small-canadian-lng-project-delayed-to-2018-as-costs-bite-idUSL2N1MZ1PK>, accessed December 4, 2017. Karen Thomas, "Updated: Woodfibre LNG delays construction decision," LNG World Shipping, October 25, 2017, <http://>

- [www.lngworldshipping.com/news/view.woodfibre-lng-delays-construction-decision\\_49650.htm](http://www.lngworldshipping.com/news/view.woodfibre-lng-delays-construction-decision_49650.htm), accessed December 5, 2017.
50. Chevron Corporation, "Kitimat LNG Project," <https://www.chevron.ca/our-businesses/kitimat-lng-project>, accessed February 21, 2017.
  51. Woodside Energy Ltd., "Kitimat LNG," <http://www.woodside.com.au/Our-Business/Developing/Canada/Pages/Kitimat.aspx#.WK3XNm8rJEZ>, accessed February 21, 2017.
  52. Robert Rapier, "The top 10 natural gas producers," Forbes, August 12, 2016, <http://www.forbes.com/sites/rrapier/2016/08/12/the-top-10-natural-gas-producers/#4862f9733f7a>.
  53. Apache Corporation, "Apache Canada, Chevron Canada announce joint venture for Kitimat LNG project," December 24, 2012, <http://investor.apachecorp.com/releasedetail.cfm?ReleaseID=728700>. BC Ministry of Natural Gas Development, "Major LNG contract awarded," January 13, 2014, [https://archive.news.gov.bc.ca/releases/news\\_releases\\_2013-2017/2014MNGD0001-000029.htm](https://archive.news.gov.bc.ca/releases/news_releases_2013-2017/2014MNGD0001-000029.htm).
  54. Robin Rowland, "Haisla, BC government sign agreement for third LNG facility at Kitimat," Northwest Coast Energy News, September 14, 2012, <http://nwcoastenergynews.com/2012/09/14/3712/haisla-bc-government-sign-agreement-lng-facility-kitimat/>.
  55. Haisla Nation, "Economic Development: Projects," <http://haisla.ca/economic-development/projects/>, accessed February 21, 2017.
  56. Chevron Corporation, "Pacific Trail Pipeline," <https://www.chevron.ca/our-businesses/kitimat-lng-project/pacific-trail-pipeline>, accessed February 21, 2017.
  57. Woodside Energy, Investor Briefing Day 2017 Slide Pack, May 23, 2017, <http://www.woodside.com.au/Investors-Media/announcements/Documents/23.05.2017%20Investor%20Briefing%20Day%202017.pdf>, accessed December 8, 2017. John Crawford, "Site Preparation Continues on Kitimat LNG Project, But No Final Investment Decision Yet," CFTK TV, August 1, 2017, <http://www.cftktv.com/News/Story.aspx?ID=2189623>, accessed December 4, 2017. Gerry Leibel, "Business as usual for Kitimat's LNG projects," Kitimat Northern Sentinel, August 5, 2017, <http://www.northernsentinel.com/local-news/business-as-usual-for-kitimats-lng-projects/>, accessed December 4, 2017.
  58. Crawford, "Site preparations continue." Gerry Leibel, "Adverts not an indication of progress on pipeline, LNG," Northern Sentinel, June 18, 2017, <http://www.northernsentinel.com/local-news/adverts-not-an-indication-of-progress-on-pipeline-lng/>, accessed December 4, 2017.
  59. Kitimat Council, "Video: December 5, 2016 Regular Council Meeting," District of Kitimat, December 6, 2016, <http://www.kitimat.ca/EN/meta/news/archives/2016/video-december-5-2016-regular-council-meeting.html>, accessed December 6, 2017. Chris Newton, "Kitimat LNG might not be built for ten years," Energetic City, December 7, 2016, <https://energeticcity.ca/2016/12/kitimat-lng-might-not-built-ten-years/>, accessed December 6, 2017.
  60. Gordon Hoekstra, "Pacific NorthWest LNG mega-project is dead, but B.C.'s LNG dream lives on," Vancouver Sun, June 28, 2017, <http://vancouversun.com/business/energy/lng-possibility-lives-on-even-after-death-of-mega-project-pacific-northwest-lng>, accessed December 4, 2017.
  61. Robin Rowland, "Haisla, BC government sign agreement for third LNG facility at Kitimat," Northwest Coast Energy News, September 14, 2012, <http://nwcoastenergynews.com/2012/09/14/3712/haisla-bc-government-sign-agreement-lng-facility-kitimat/>.

62. BC Government, "BC LNG Projects: Cedar LNG," <http://lnginbc.gov.bc.ca/tile/cedar-lng/>. National Energy Board, "Export and Import License Applications," <https://www.neb-one.gc.ca/pplctnflng/mjrpp/lngxprtlncnc/index-eng.html>, accessed February 21, 2017.
63. Cedar 1 LNG Export Ltd., "Application of Cedar 1 LNG Export Ltd. For a License to Export Liquefied Natural Gas," August 28, 2014, <https://apps.neb-one.gc.ca/REGDOCS/File/Download/2504157?nodeid=2504157&vernum=-2>.
64. Gordon Hoekstra, "Haisla Nation in tough waiting game as LNG delayed," Vancouver Sun, May 27, 2016, <http://vancouversun.com/business/energy/haisla-nation-in-tough-waiting-game-as-lng-delayed>. Brent Jang, "The consensus builder," The Globe and Mail, May 20, 2016, <http://www.theglobeandmail.com/report-on-business/careers/careers-leadership/the-lunch-ellis-ross/article30106168/>. British Columbia Ministry of Environment, "Kitimat LNG receives approval from province," June 6, 2016, [https://archive.news.gov.bc.ca/releases/news\\_releases\\_2005-2009/2006ENV0048-000746.htm](https://archive.news.gov.bc.ca/releases/news_releases_2005-2009/2006ENV0048-000746.htm).
65. Douglas Channel LNG Project, "Consortium halts development on Douglas Channel LNG project," <http://douglaschannellng.com/>, accessed February 21, 2017.
66. BC Ministry of Natural Gas Development, "Triton LNG joins list of BC proposals," October 31, 2013, [https://archive.news.gov.bc.ca/releases/news\\_releases\\_2013-2017/2013MNGD0027-001646.htm](https://archive.news.gov.bc.ca/releases/news_releases_2013-2017/2013MNGD0027-001646.htm). "Japanese oil company backs out of B.C. liquefied natural gas project," CTV News, May 10, 2016, <http://www.ctvnews.ca/business/japanese-oil-company-backs-out-of-b-c-liquefied-natural-gas-project-1.2896527>.
67. Johnny Wakefield, "After bowing out of LNG game, AltaGas announces progress on propane export project," The Mirror, May 24, 2016, <http://www.dawsoncreekmirror.ca/regional-news/lng/after-bowing-out-of-lng-game-altagas-announces-progress-on-propane-export-project-1.2262270>, accessed December 4, 2017.
68. Brent Jang, "AltaGas halts plan to export LNG from British Columbia's north coast," The Globe and Mail, February 25, 2016, <http://www.theglobeandmail.com/report-on-business/industry-news/energy-and-resources/altagas-halts-plan-to-export-lng-from-british-columbias-north-coast/article28922586/>.
69. BC Oil and Gas Commission, "Pacific Northern Gas Looping Project," [http://www.bcogc.ca/sites/default/files/Pacific%20Northern%20Gas%20Looping%20Project%20-external\\_Feb%201%202016.pdf](http://www.bcogc.ca/sites/default/files/Pacific%20Northern%20Gas%20Looping%20Project%20-external_Feb%201%202016.pdf).
70. Mike Laanela, "Altagas planning to build B.C.'s first propane export terminal," CBC News, January 4, 2017, <http://www.cbc.ca/beta/news/canada/british-columbia/altagas-prince-rupert-propane-export-1.3920632>.
71. LNG Canada, <https://www.lngcanada.ca/>, accessed February 22, 2017.
72. Robert Rapier, "The top 10 natural gas producers," Forbes, August 12, 2016, <http://www.forbes.com/sites/rrapier/2016/08/12/the-top-10-natural-gas-producers/#4862f9733f7a>. Shell Global, "Liquefied Natural Gas (LNG)," <http://www.shell.com/energy-and-innovation/natural-gas/liquefied-natural-gas-lng.html>, accessed February 22, 2017.
73. LNG Canada, "About LNG Canada: The Companies behind LNG Canada," <https://www.lngcanada.ca/about-lng-canada/the-companies-behind-lng-canada/>, accessed February 22, 2017. Mitsubishi Corporation, "Business Model: LNG," <http://www.mitsubishicorp.com/jp/en/ir/individual/business/lng/>, accessed February 22, 2017.

74. LNG Canada, "LNG Canada's Joint Venture Participants Delay Timing of Final Investment Decision," July 11, 2016, <https://www.lngcanada.ca/media/>, accessed January 3, 2018.
75. Nicole Mordant, "LNG Canada targets 2018 for export terminal decision: CEO," Reuters, August 3, 2017, <https://ca.reuters.com/article/businessNews/idCAKBN1AJ35N-OCABS>, accessed December 4, 2017. Natalie Obiko Pearson, "Shell Still Thinks Canadian LNG Project Could Be a Go," Bloomberg Markets, July 27, 2017, <https://www.bloomberg.com/news/articles/2017-07-27/shell-still-thinks-canada-lng-project-could-be-a-go-says-ceo>, accessed December 4, 2017.
76. BC Government, "BC LNG Projects: LNG Canada," <http://lnginbc.gov.bc.ca/tile/lng-canada/>, accessed February 22, 2017. TransCanada, "Coastal GasLink Pipeline Project: Pipeline Route," <http://www.coastalgaslink.com/about/route-maps/>, accessed February 22, 2017.
77. National Energy Board, "A77188 National Energy Board – Letter and License GL-330 – LNG Canada Development Inc.," May 27, 2016, <https://apps.neb-one.gc.ca/REGDOCS/Item/View/2982380>, accessed December 11, 2017.
78. WILNG Corporation, "Who We Are," <http://www.wilng.ca/who-we-are>, accessed February 21, 2017.
79. BC Government, "BC LNG Projects: Watson Island LNG," <http://lnginbc.gov.bc.ca/tile/watson-island-lng/>, accessed February 21, 2017.
80. City of Prince Rupert, "Watson Island LNG Corporation Exclusivity Agreement," July 16, 2014, <http://www.princerupert.ca/cityhall/news/july-16-2014-watson-island-lng-corporation-exclusivity-agreement>. WILNG Corporation, "BC LNG/LPG Export Project," <http://www.wilng.ca/watson-island-lng>, accessed February 21, 2017.
81. "WILNG to build small LNG export terminal," LNG Industry, July 17, 2014, [https://www.lngindustry.com/liquid-natural-gas/17072014/wilng\\_to\\_build\\_small\\_lng\\_export\\_terminal\\_on\\_watson\\_island\\_1005/](https://www.lngindustry.com/liquid-natural-gas/17072014/wilng_to_build_small_lng_export_terminal_on_watson_island_1005/).
82. Shaun Thomas, "City of Prince Rupert offers Watson Island LNG exclusive rights to former pulp mill site," Northern View, July 16, 2014, <http://www.thenorthernview.com/news/267379231.html>.
83. LNG in Northern BC, "Orca LNG given LNG export license," July 28, 2015, <http://lnginnorthernbc.ca/index.php/newsroom/orca-lng-given-lng-export-licence>.
84. Orca LNG, <http://orcalng.com/>, accessed February 21, 2017.
85. BC Government, "BC LNG Projects: Orca LNG," <http://lnginbc.gov.bc.ca/tile/orca-lng/>, accessed February 21, 2017.
86. "NEB grants Orca LNG export license," LNG World News, July 28, 2015, <http://www.lngworldnews.com/neb-grants-orca-lng-export-licence/>.
87. LNG in Northern BC, "Orca LNG given LNG export license," July 28, 2015, <http://lnginnorthernbc.ca/index.php/newsroom/orca-lng-given-lng-export-licence>.
88. NewTimes Energy, "About Us," [http://www.newtimesenergy.com/?page\\_id=446](http://www.newtimesenergy.com/?page_id=446), and "LNG Pipeline Preview," [http://www.newtimesenergy.com/?page\\_id=90](http://www.newtimesenergy.com/?page_id=90), both accessed February 28, 2017. Katie Woodward, "NewTimes Energy joins LNG race," LNG Industry, February 12, 2015, <https://www.lngindustry.com/floating-lng/12022015/another-lng-company-joins-the-export-race-239/>.

89. Brent Jang, "Vancouver-based NewTimes Energy latest entrant into crowded LNG field," The Globe and Mail, February 11, 2015, <http://www.theglobeandmail.com/report-on-business/industry-news/energy-and-resources/vancouver-based-newtimes-energy-latest-entrant-into-crowded-lng-field/article22932594/>. Canada's National Energy Board, "Export and Import License Applications," <https://www.neb-one.gc.ca/pplctnflng/mjrpp/lngxprtlcn/index-eng.html>, last accessed December 12, 2017.
90. Exxon Mobil Corporation, "About WCC LNG," <http://www.wcclngproject.ca/>, accessed February 21, 2017.
91. Exxon Mobil Corporation, "LNG Operations: WCC LNG," <http://corporate.exxonmobil.com/en/technology/liquefied-natural-gas/operations/western-canada-lng-project>, accessed February 21, 2017.
92. ExxonMobil, "WCC LNG Project Description," January 8, 2015, <https://projects.eao.gov.bc.ca/p/wcc-lng/docs>, p. 117.
93. Exxon Mobil Corporation, "About WCC LNG," <http://www.wcclngproject.ca/>, accessed December 6, 2017. Exxon Mobil Corporation, Community Link Newsletter, Winter 2017 – Issue 3, <http://www.wcclngproject.ca/site/wp-content/uploads/WCC-LNG-Community-Link-Newsletter-Issue-3.pdf>, accessed December 8, 2017. National Energy Board, "A80240 National Energy Board – Letter and License GL-335 to WCC LNG Ltd.," October 26, 2016, <https://apps.neb-one.gc.ca/REGDOCS/Item/Filing/A80240>, accessed December 11, 2017.
94. Corey Callaghan, "WCC LNG to Close Prince Rupert Office This Week," CFTK TV, December 4, 2017, <http://www.cftktv.com/News/Story.aspx?ID=2190047>, accessed December 8, 2017. Shannon Lough, "WCC LNG office to close in Rupert," The Northern View, December 3, 2017, <https://www.thenorthernview.com/news/wcc-lng-office-to-close-in-rupert/>, accessed December 6, 2017.
95. Woodside Energy Ltd., "Grassy Point LNG," <http://www.woodside.com.au/Our-Business/Developing/Canada/Pages/Grassy-Point.aspx#.WK4lX28rJEZ>, and "About Us," <http://www.woodside.com.au/About-Us/Pages/about-us.aspx>, both accessed February 21, 2017.
96. BC Government, "BC LNG Projects: Grassy Point LNG," <http://lnginbc.gov.bc.ca/tile/grassy-point/>, accessed February 21, 2017.
97. BC Oil and Gas Commission, "Grassy Point LNG," <https://www.bcogc.ca/node/11394/download>, accessed February 21, 2017. Brent Jang, "Australian firm asks B.C. First Nation to support LNG project," The Globe and Mail, June 8, 2016, <http://www.theglobeandmail.com/news/british-columbia/australian-firm-asks-bc-first-nation-to-support-lng-project/article30363408/>. Province of British Columbia, "Second Agreement reached for Grassy Point: Grassy Point Map," January 16, 2014, [https://news.gov.bc.ca/files/Newsroom/downloads/grassy\\_point\\_map\\_january\\_16\\_14.pdf](https://news.gov.bc.ca/files/Newsroom/downloads/grassy_point_map_january_16_14.pdf).
98. Woodside Petroleum Ltd., "Half-Year Report 2016," June 30, 2016, <http://www.woodside.com.au/Investors-Media/announcements/Documents/19.08.16%20Half-Year%20Report%202016.pdf>.



99. Ari Charney, "Australian energy giant makes bid for Canadian LNG," Investing Daily, January 2, 2015, <https://www.investingdaily.com/21850/australian-energy-giant-makes-bid-for-canadian-lng-2/>.
100. 1Woodside Petroleum Ltd., Investor Briefing Day 2017 Slide Pack, May 23, 2017, <http://www.woodside.com.au/Investors-Media/announcements/Documents/23.05.2017%20Investor%20Briefing%20Day%202017.pdf>, accessed December 8, 2017.
101. Nisga'a Lisims Government, "Opportunities: LNG," <http://www.nisgaanation.ca/opportunities/LNG>, accessed February 21, 2017. Jeff Lewis, "B.C.'s Nisga'a reach out for LNG development, offer land in exchange for jobs," Financial Post, February 11, 2014, <http://business.financialpost.com/news/energy/b-c-s-nisgaa-reach-out-for-lng-development-offers-land-in-exchange-for-jobs>.
102. Nisga'a Lisims Government, "LNG – A Presentation on Available LNG Sites," February 2014, <http://www.nisgaanation.ca/lng-presentation-available-lng-sites>.
103. TransCanada, "Prince Rupert Gas Transmission Project: Proposed Route," <http://www.princerupertgas.com/about-2/route-maps/>. "Nisga'a promote possible LNG plant locations," Terrace Standard, December 8, 2014, <http://www.terracestandard.com/news/285011071.html>.
104. BC Government, "BC LNG Projects: Nisga'a LNG," <http://lnginbc.gov.bc.ca/tile/nisgaa-lng/>, accessed February 21, 2017.
105. TransCanada, "Nisga'a Nation and Prince Rupert Gas Transmission Ltd. Celebrate agreement; Nisga'a Nation seeks investors to pursue LNG liquefaction project," November 6, 2014, <http://www.transcanada.com/announcements-article.html?id=1894076&t>. "Massive land deal sought for B.C.'s north coast," Terrace Standard, May 24, 2016, <http://www.terracestandard.com/news/380650241.html>.
106. Kitsault Energy, <http://www.kitsaultenergy.com/>, accessed February 21, 2017.
107. Nick Eagland, "Two B.C. ghost towns have sat empty for decades, but owners have a plan to bring them back to life," National Post, September 28, 2015, <http://news.nationalpost.com/news/canada/two-b-c-ghost-towns-have-lain-empty-for-decades-but-owners-hope-hydro-projects-will-bring-them-back-to-life>. Justin McElroy, "Ghost Town Mysteries: The 30-year slumber of Kitsault, B.C.," Global News, July 30, 2014, <http://globalnews.ca/news/1483593/ghost-town-mysteries-the-30-year-slumber-of-kitsault-b-c/>.
108. 1Kitsault Energy, "About the President," <http://www.kitsaultenergy.com/president.html>, accessed February 21, 2017. Doug Struck, "Virginia millionaire buys himself a ghost town," Washington Post, July 30, 2005, <http://www.washingtonpost.com/wp-dyn/content/article/2005/07/29/AR2005072902170.html>.
109. 1Kitsault Resorts Ltd., "About Kitsault," [http://www.kitsault.com/about\\_loc.html](http://www.kitsault.com/about_loc.html), accessed February 21, 2017.
110. Kitsault Energy, "Kitsault Energy Application," December 18, 2013, <https://apps.neb-one.gc.ca/REGDOCS/File/Download/2397682?nodeid=2397682&vernum=-2>.
111. BC Government, "BC LNG Projects: Kitsault Energy Project," <http://lnginbc.gov.bc.ca/tile/kitsault/>, accessed February 21, 2017.



112. Brent Jang, "LNG firm seeks to use small B.C. port," The Globe and Mail, March 16, 2014, <http://www.theglobeandmail.com/report-on-business/industry-news/energy-and-resources/lng-firm-seeks-to-use-small-bc-port/article17512219/>. Derrick Penner, "Stewart port terminal owner takes \$70-million gamble that business will follow," Vancouver Sun, September 18, 2015, <http://www.vancouversun.com/stewart+port+terminal+owner+takes+million+gamble+that+business+will+follow/11372104/story.html>. Chen Aizhu, "Interview – Former China oil tycoon plots return with Canadian gas venture," Reuters, March 18, 2014, <http://uk.reuters.com/article/china-tycoon-gas-idUKL3N0LV30N20140318>.
113. Canada Stewart Energy Group, "Introduction," <http://www.stewartenergy.ca/en/project/introduction/>; "About Stewart," <http://www.stewartenergy.ca/en/project/aboutstewart/>; "Transportation and Route," <http://www.stewartenergy.ca/en/project/transportationandroute/>; "Project Plan & Timeline," <http://www.stewartenergy.ca/en/project/projectplan/>, all accessed February 21, 2017.
114. Gordon Jaremko, "Canada's NEB licenses another would-be LNG exporter," Natural Gas Intel, January 12, 2016, <http://www.naturalgasintel.com/articles/104969-canadas-neb-licenses-another-would-be-lng-exporter>.
115. National Energy Board, "Canada Stewart Energy Group Ltd. Application to Export LNG for a period of 25 years," <https://apps.neb-one.gc.ca/REGDOCS/Item/View/2676265>, accessed February 21, 2017.
116. TransCanada, "Prince Rupert Gas Transmission Project," <http://www.princerupertgas.com/>, accessed December 11, 2017.
117. Enbridge, Inc., "Mid-Year 2017 Investor Update Meeting Transcript," [http://www.enbridge.com/~media/Enb/Documents/Investor%20Relations/2017/2017\\_ENBDays\\_USQ\\_Transcript.pdf](http://www.enbridge.com/~media/Enb/Documents/Investor%20Relations/2017/2017_ENBDays_USQ_Transcript.pdf), p. 15 and p. 17. Accessed December 12, 2017.