BC Sustainable Energy Association

Shale gas exploitation:

a balance between economic value and reduction of carbon footprint

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LNG stats

project	proponent	location	reported export volume (MT LNG/y)	export energy amount (PJ/y)	est total energy use (PJ/y)	est tot GHGs (MT CO2/y)
Kitimat LNG - eventual	Apache, Chevron	Kitimat	10	520	570	31
LNG Canada - eventual	Shell, China, Korea, Japan	Kitimat	24	1,248	1,400	74
Douglas Channel - eventual	BC LNG Export Coop LLC	Kitimat	1.8	94	105	6
Pacific Northwest LNG	PETRONAS, JAPEX	Pr. Rup.	19.7	1,024	1,125	60
Prince Rupert LNG	BG Group	Pr. Rup.	21.6	1,123	1,235	67
WCC LNG	Imperial & Exxon Mobil	Pr. Rup.	30	1,560	1,700	92
Woodfibre LNG	Pacific Oil and Gas Corp	Howe S.	2.1	109	120	7
unnamed	CNOOC, Nexen, Inpex, JGC	Pr. Rup.	?	-	-	-
unnamed	SK E&S	Pr. Rup.	?	-	-	-
unnamed	Woodside	Pr. Rup.	?	-	-	-
unnamed	Alta Gas, Indemitsu	?	2	104	115	7
Discovery LNG	Quicksilver	Camp. R.	?	-	-	-
Total - 3 most advanced			**36**	**1,900**	**2,100**	**110**
Total - all with export vol.			**110**	**5,800**	**6,400**	**343**

More LNG stats

- BC MNGD gas resource estimate: 2,933 Tcf
- Production rate to last 150 years: 20 Tcf/y
- BC’s current gas production: 1.1 Tcf/y
- Gas for 1st 3 LNG facilities: 1.8 Tcf/y
- Gas for all LNG facilities: 5.6 Tcf/y

Even more LNG stats:

- Geoff Morrison of CAPP (cited in Vancouver Sun; converted to $/GJ):
  - $14 - $15/GJ: Asian price for gas
  - $3 - $4/GJ: domestic price for gas
  - $5 - $8/GJ: cost to produce & export
- This leaves between $2 and $7/GJ for royalties and corporate profit.

What are sustainability needs?

- Operating:
  - Economic viability (corporate profit)
  - Balance government budget
  - Jobs
- Sustainability:
  - Mitigate or avoid climate change
  - Compensate for harm of climate change
  - Durable means of living & economic activity

BC's GHGs

- Targets:
- 6% below 2007 by 2012 – 61 MT
- 18% below 2007 by 2018 – 53 MT
- 33% below 2007 by 2030 – 44 MT
- 80% below 2007 by 2050 – 13 MT
- (2007 emissions: 65 MT)