

Supplementary Materials 2: The Role of Sustainability Resources of Large Greenhouse Gas Emitters: The Case of Corporations in Alberta, Canada

Marwa Hannouf and Getachew Assefa

The Table S2 below presents the 16 corporations responsible for the 23 reporting companies including 44 facilities emitting 86% of total GHG reported by facilities (emitting >100,000 tonnes CO₂e) under SGER in Alberta in 2011.

Table S2. Grouping the 23 reporting companies with their associated facilities (under SGER), responsible for 86% of total GHG reported by facilities with emissions above the threshold in Alberta under SGER in 2011, into parent corporations.

Corporation (Parent Company)	Reporting Company ^a	Facilities Related to the Reporting Company ^a	Sector ^a	Total Emissions (Tonnes CO ₂ e) Reported by Facilities ^b
Syncrude Canada Ltd.	Syncrude Canada Ltd.	1- Mildred Lake and Aurora North Plant Sites	Oil Sands Mining and Upgrading	12,860,275
TransAlta corporation	TransAlta Generation Partnership	1- Sundance Thermal Electric Power Generating Plant 2- Keephills Thermal Electric Power Generating Plant 3- Fort Saskatchewan Thermal Electric(Cogeneration) Power Plant 4- Highvale Coal Mine	Electric Power Generation	20,004,996
Capital Power corporation	Capital Power Generation Services Inc.	1- Genesee Thermal Generating Station	Electric Power Generation	9,387,151
Suncor Energy Inc. Corporation	Suncor Energy Oil Sands Limited Partnership	1- Firebag 2- Mackay River In-Situ Oil Sands Plant 3- Suncor Energy Inc. Oil Sands	Oil Sands Mining and Upgrading—Oil Sands in situ extraction	10,607,060
	Suncor Energy Products Partnership	1- Edmonton Refinery	Petroleum and Coal Products	1,306,418
ATCO Group Corporation	Alberta Power (2000) Ltd.	1- Sheerness Generating Station 2- Battle River Generating Station	Electric Power Generation	10,724,016
	ATCO Power Canada Ltd.	1- Muskeg River Cogeneration Plant 2- Rainbow Lake Cogeneration Power Plant (Units 4–5)	Oil Sands Mining and Upgrading	1,500,662
Imperial Oil Limited Corporation	Imperial Oil Resources	1- Cold Lake 2- Quirk Creek Gas Plant	Oil Sands in situ Extraction—Conventional Oil and Gas Extraction	4,720,385
	Imperial Oil	1- Strathcona Refinery	Petroleum and Coal Products	1,479,143
Nexen	Nexen Inc.	1- Long Lake Project 2- Balzac Power Station	Oil Sands in Situ Extraction—Electric Power Generation	3,387,916

Table S2. Cont.

Corporation (Parent Company)	Reporting Company ^a	Facilities Related to the Reporting Company ^a	Sector ^a	Total Emissions (Tonnes CO _{2e}) Reported by Facilities ^b
Royal Dutch Shell Plc	Shell Canada Energy Limited	1- Scotford Upgrader and Upgrader Cogeneration	Oil Sands Mining and Upgrading	2,934,793
	Shell Canada Products	1- Shell Scotford Refinery	Petroleum and Coal Products	1,103,221
	Shell Canada Energy	1- Shell Albian Sands Jackpine Mine 2- Shell Albian Sands Muskeg River Mine	Oil Sands Mining and Upgrading	1,677,465
	Shell Canada Limited	1- Caroline Complex 2- Watertone Complex 3- Peace River Complex 5-21 4- Jumping Pound Complex 5- Shell Burnt Timber Gas Plant 6- Orion Complex	Conventional Oil and Gas Extraction— Oil Sands In Situ Extraction	1,859,662
		1- Wolf Lake and Primrose Plant 2- Horizon Oil Sands Processing Plant and Mine	Oil Sands in Situ Extraction—Oil Sands Mining and Upgrading	4,624,069
Canadian Natural Resources	Canadian Natural Resources Limited	1- NOVA Chemicals Corporation (Joffre)	Chemical Manufacturing	2,892,741
Nova Chemicals	NOVA Chemicals Corporation	1- Foster Creek SAGD Bitumen Battery (with Cogen) 2- Christina Lake SAGD Bitumen Battery	Oil Sands In Situ Extraction	2,498,596
Cenovus Energy	Cenovus FCCL Ltd., as operator for FCCL Partnership			
Canadian Fertilizers Industries	Canadian Fertilizers Limited	1- Canadian Fertilizers Limited	Fertilizer Manufacturing	1,637,981
The Dow Chemical Company	Dow Chemical Canada ULC	1- Western Canada Operations	Chemical Manufacturing	1,426,306
TransCanada Corporation	Nova Gas Transmission Ltd.	1- TransCanada Pipeline, Alberta System	Pipeline Transportation	1,792,430
	TransCanada Energy Ltd.	1- MacKay River Power Plant 2- Carseland Power Plant 3- Redwater Cogeneration Plant	Oil Sands In Situ Extraction—Electric Power Generation	1,360,432
		1- Redwater Fertilizer Operations 2- Fort Saskatchewan Nitrogen Operations 3- Carseland Nitrogen Operations	Fertilizer Manufacturing	2,341,245
Agrium Corporation	Agrium Inc.			
Air Products Corporation	Air Products Canada Ltd.	1- Edmonton Hydrogen Facility	Chemical Manufacturing	1,010,044

^a Reporting companies, facilities and sectors are based on the latest published list from Alberta Environment and Sustainable Resource Development for 2011 with reported GHG emissions in CO_{2e} [1]; ^b Total emissions are the emissions reported by the facilities (in column 3) related to the same reporting company calculated according to the latest published list from Alberta Environment and Sustainable Resource Development for 2011 with reported GHG emissions in CO_{2e} [1].

Reference

1. Alberta Environment and Sustainable Resource Development (AESRD). *Information Centre, 2011 Facility Table*; AESRD, Government of Alberta: Edmonton, AB, Canada, 2012. Available online: <http://environment.gov.ab.ca/info/posting.asp?assetid=8851&subcategoryid=53> (accessed on 1 September 2014).