

# Emissions Inventory Quick-Updates for AIRPACT-4

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NW-AIRQUEST Annual Meeting (June 18-20, 2014 )



State of Oregon  
Department of  
Environmental  
Quality

# Overview

## Goal:

- Develop methods to automatically update the AIRPACT EI when large point sources shut down or turn on.

## Methods:

- Query reports from the US Energy Information Administration (EIA), the Northwest Power and Conservation Council, and/or other sources.
- Update point source inventory in AIRPACT as necessary

# EIA Sample Report

Plant Id	Plant Name	Operator Id	State	Sector Name	Reported Fuel Type Code	Physical Unit Label	Quantity Jan	Quantity Feb	Quantity Mar
55662	Chehalis Generating Facility	14354	WA	Electric Utility	NG	mcf	1,769,628	1,549,298	1,506,300
7605	River Road Gen Plant	3660	WA	Electric Utility	NG	mcf	1,319,060	1,183,213	1,319,060
55700	Mint Farm Generating Station	15500	WA	Electric Utility	NG	mcf	1,192,574	1,125,720	77,829
55482	Goldendale Generating Station	15500	WA	Electric Utility	NG	mcf	1,110,047	945,892	153,602
54537	Ferndale Generating Station	15500	WA	Electric Utility	NG	mcf	875,089	464,863	0
55818	Frederickson Power LP	56613	WA	NAICS-22 Non-Cogen	NG	mcf	864,021	495,769	0
54268	March Point Cogeneration	11459	WA	NAICS-22 Cogen	NG	mcf	768,061	768,029	953,337
7999	Grays Harbor Energy Facility	49893	WA	Electric Utility	NG	mcf	666,956	813,750	0
3845	Transalta Centralia Generation	19099	WA	NAICS-22 Non-Cogen	SUB	short tons	629,100	584,107	209,602
54268	March Point Cogeneration	11459	WA	NAICS-22 Cogen	OG	mcf	530,982	400,951	27,716
99999	State-Fuel Level Increment	99999	WA	Electric Utility	LFG	mcf	343,801	294,700	350,157
99999	State-Fuel Level Increment	99999	WA	Electric Utility	NG	mcf	256,986	222,581	115,640
54562	Longview Fibre	11169	WA	Industrial NAICS Cogen	NG	mcf	204,361	156,637	157,238
50187	Weyerhaeuser Longview WA	20548	WA	Industrial NAICS Cogen	NG	mcf	138,268	93,312	131,205
99999	State-Fuel Level Increment	99999	WA	Commercial NAICS Cogen	NG	mcf	126,403	91,392	57,370
99999	State-Fuel Level Increment	99999	WA	Electric Utility	NG	mcf	103,954	84,435	32,255
99999	State-Fuel Level Increment	99999	WA	Industrial NAICS Cogen	WDS	short tons	77,700	69,418	65,184
54562	Longview Fibre	11169	WA	Industrial NAICS Cogen	BLQ	short tons	74,505	95,485	107,612
50187	Weyerhaeuser Longview WA	20548	WA	Industrial NAICS Cogen	BLQ	short tons	69,058	67,729	64,047
550	Kettle Falls Generating Station	20169	WA	Electric Utility	WDS	short tons	54,406	46,664	21,970
99999	State-Fuel Level Increment	99999	WA	Industrial NAICS Cogen	WDL	barrels	35,311	116,777	33,629
607	Fredonia	15500	WA	Electric Utility	NG	mcf	32,350	18,349	59,171
57099	Simpson Tacoma Kraft Biomass	56400	WA	Industrial NAICS Non-Cogen	BLQ	short tons	30,198	32,900	50,339

# NWPCC Sample Report

Project	Primary Fuel	Resource Type	Plot status	Service Month	Service Year	Terminated Year	State	Last Update
Bannock County Landfill	LFG	Biomass	Construction	May	2014		ID	2/5/2014
Columbia River Landfill Expansion	LFG	Biomass	Proposed	Sep	2014		OR	9/19/2012
Troutdale Energy Center 1	NG	Natural gas	Proposed		2014		OR	1/10/2014
Willamette Green Innovation Center	NG	Natural gas	Proposed		2014		OR	9/20/2012
Farm Power Misty Meadow	AW	Biomass	Operating	Jan	2013		OR	1/30/2014
Nippon Paper Industries	WW	Biomass	Operating	Dec	2013		WA	7/16/2013
Rock Creek Dairy	AW	Biomass	Operating	Feb	2013		ID	4/22/2013
Stoltze Lumber Biomass Project	WW	Biomass	Operating	Oct	2013		MT	2/14/2014
Jordan Cove	CCCG	Natural gas	Terminated			2013	OR	5/17/2013
Dynamis Ada County Landfill Project	ST	Biomass	Terminated			2013	ID	3/19/2013
Klamath Falls Bioenergy	ST	Biomass	Terminated			2013	OR	7/10/2013
Cedar Hills Landfill	CC	Biomass	Terminated			2011	WA	12/8/2011
Adage Mason County	ST	Biomass	Terminated			2011	WA	3/21/2011
Newberry Geothermal Project (Military Pass Road)	GE	Geothermal	Terminated			2010	OR	9/29/2010
Pacific Mountain Energy Center	IGCC	Petroleum	Terminated			2009	WA	5/14/2009
CCG 500	IGCC	Coal	Terminated			2008	ID	9/29/2008
Highwood (coal)	FBST	Coal	Terminated			2008	MT	2/3/2009
Wallula Energy Resource Center	IGCC	Coal	Deferred			2008	WA	4/1/2008
COB Energy Facility	CC	Natural gas	Terminated			2007	OR	8/6/2007
Nelson Creek (Lignite) 1 & 2	ST	Coal	Terminated			2007	MT	9/29/2010

# Potential Problems

## Timing/Predictability:

- EIA Reports come out 2 months after the month in question; not ideal for forecast
- NWPCC Reports include projections of the future; not always accurate

## Information Details:

- NWPCC Reports may not include all identifying information needed (e.g. facility IDs)
- NWPCC Reports are not appropriate for intermittent (e.g. maintenance) updates;
- No emissions estimates for new sources

# Possible Solutions

## Timing/Predictability:

- For EIA: only turn off sources when reports show 3+ months of down time (maintenance is typically less than 2 months)
- NWPCC may need to be queried more often for “up-to-date” information

## Information Details:

- Create lookup table to match IDs with AIRPACT IDs
- NWPCC only for new/retired sources
- Alert / Manual Entry for new sources

# Future Work

## NWPCC:

- cross-check facility IDs with AIRPACT
- note expected format change

## EIA:

- cross-check with NWPCC for consistency

## Other Sources:

- Find source of information for facilities other than EGUs
- CEMS data is available for units in the acid rain program (2 month lag)

## Overall:

- Create necessary scripts and test