MERIT

Mongolia:
Enhancing Resource
Management through
Institutional Transformation

Canadian Energy Statistics Program

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Outline of presentation

- Monitoring energy markets
- Policy drivers for data users
- Major users of energy statistics
- Energy statistics data partnerships
- Statistics Canada Energy Statistics Program
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  - Crude oil and Natural gas Surveys
  - Petroleum Products Survey
  - Pipeline Surveys
  - Industrial energy consumption
  - ➢ Canadian Energy Flow
- Canadian energy flows

"To Measure is to know."

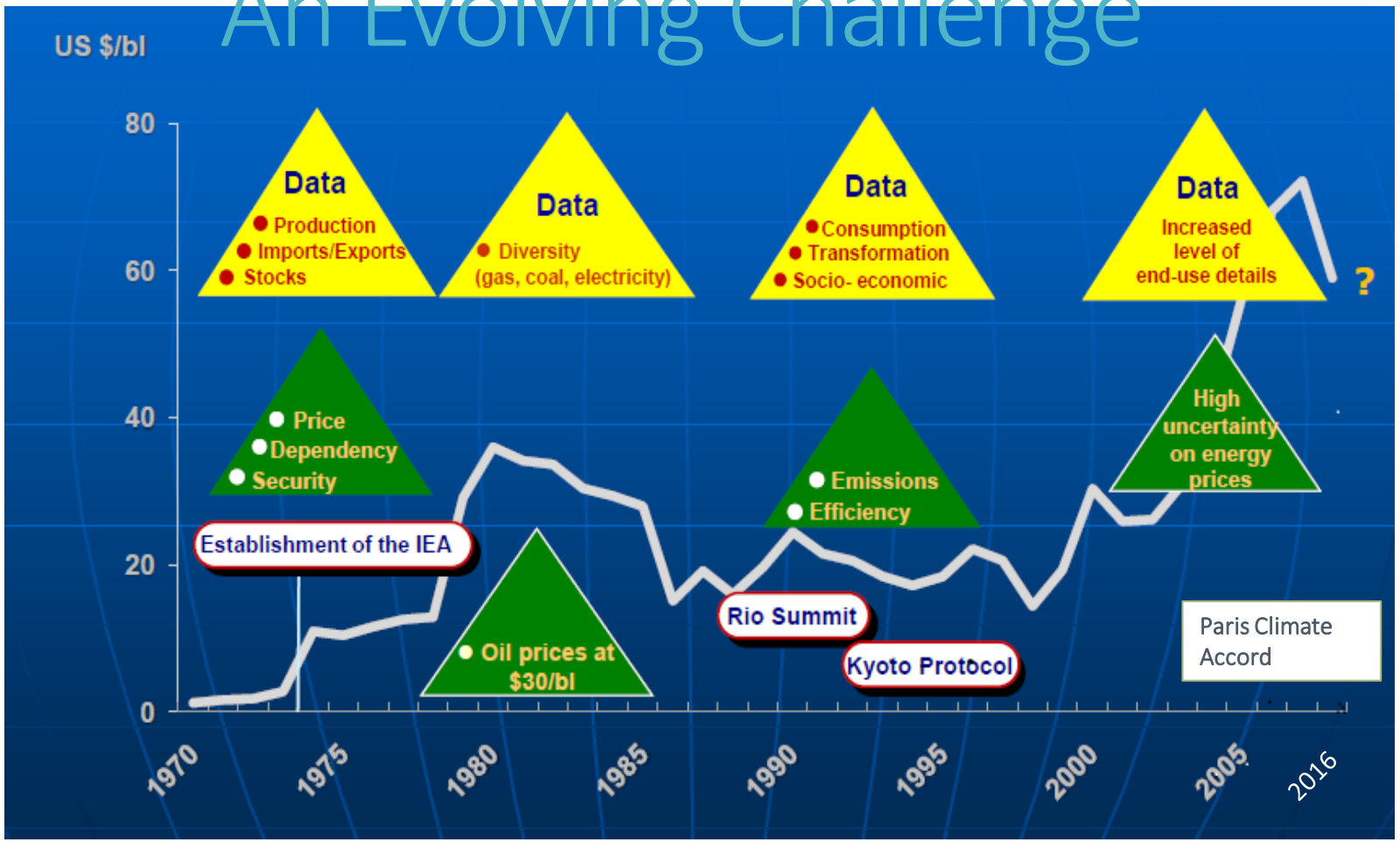
&

"If you cannot measure it,

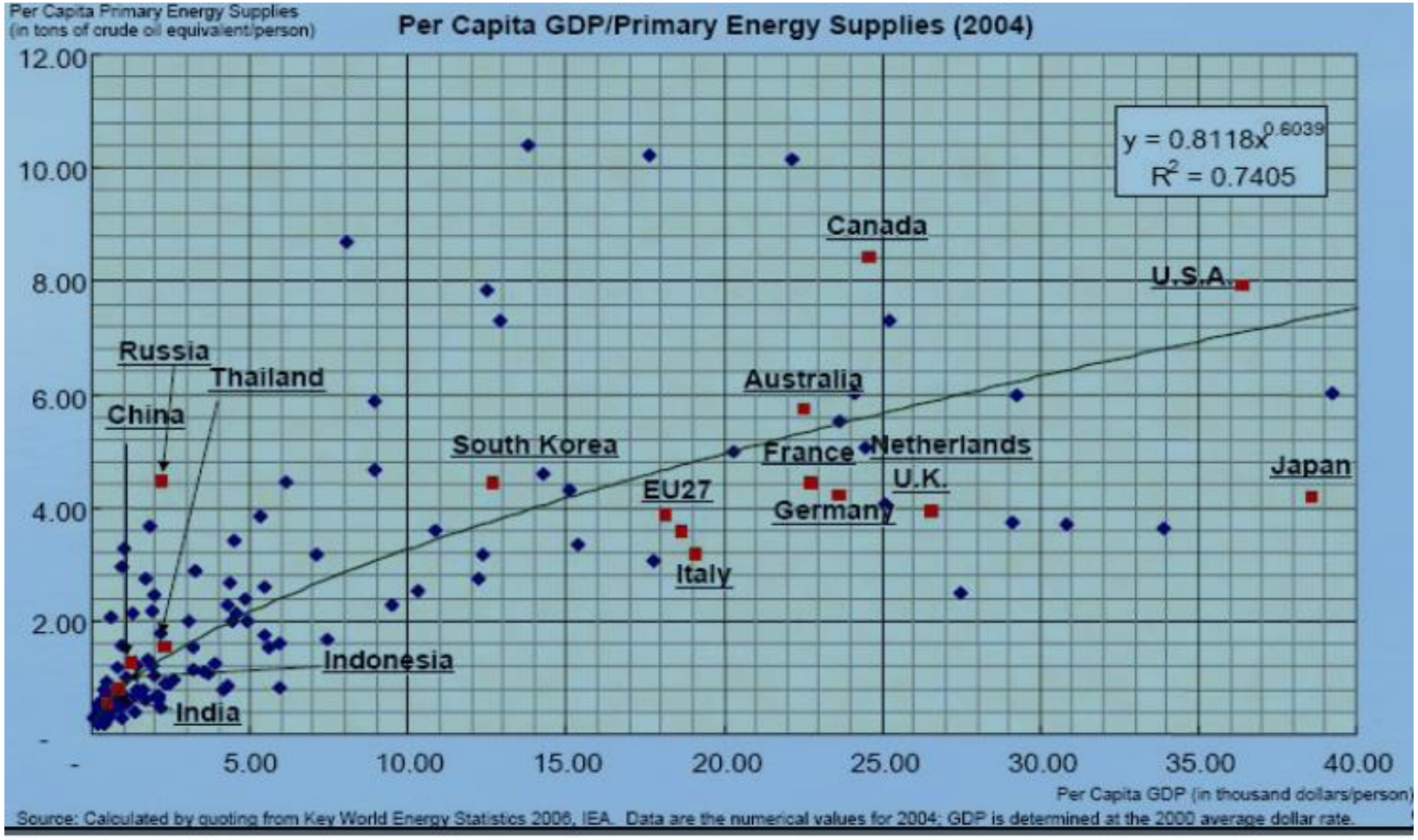
you cannot improve it."

Lord Kelvin

Monitoring the Energy Market: "An Evolving Challenge"



Large differences in energy intensity between comparable economies



Policy drivers for external users

Energy and the economy: GDP, investment, employment, investment, trade, transportation, prices, wealth

Energy security: sustainability of supply, stability of markets, emergency preparedness, energy efficiency

Energy and the environment: impact on global warming and climate change

Uses of Energy Statistics

Data required for integration into the input-output sector of the Canadian System of National Accounts.

Data shared with other government departments (federal, provincial, etc.) under the authority of the Statistics Act. Data-sharing agreements require utmost data confidentiality

Data used by survey respondents, industry associations, industry analysts, and the general public.

Examples of Users of Energy Statistics

Environment Canada
- *Greenhouse Gas Inventory Calculations*

Natural Resources Canada
- *Office of Energy Efficiency*
- *Energy Efficiency Handbook*
- *Regulations and Policy Development*

Global Affairs Canada and Finance Canada
- *Policy development*

Statistics Canada
- *System of National Accounts*
- *International Trade*
- *Environment Accounts Statistical Program*
- *Transportation statistics*

Provincial and Territorial Statistics agencies and Energy Departments

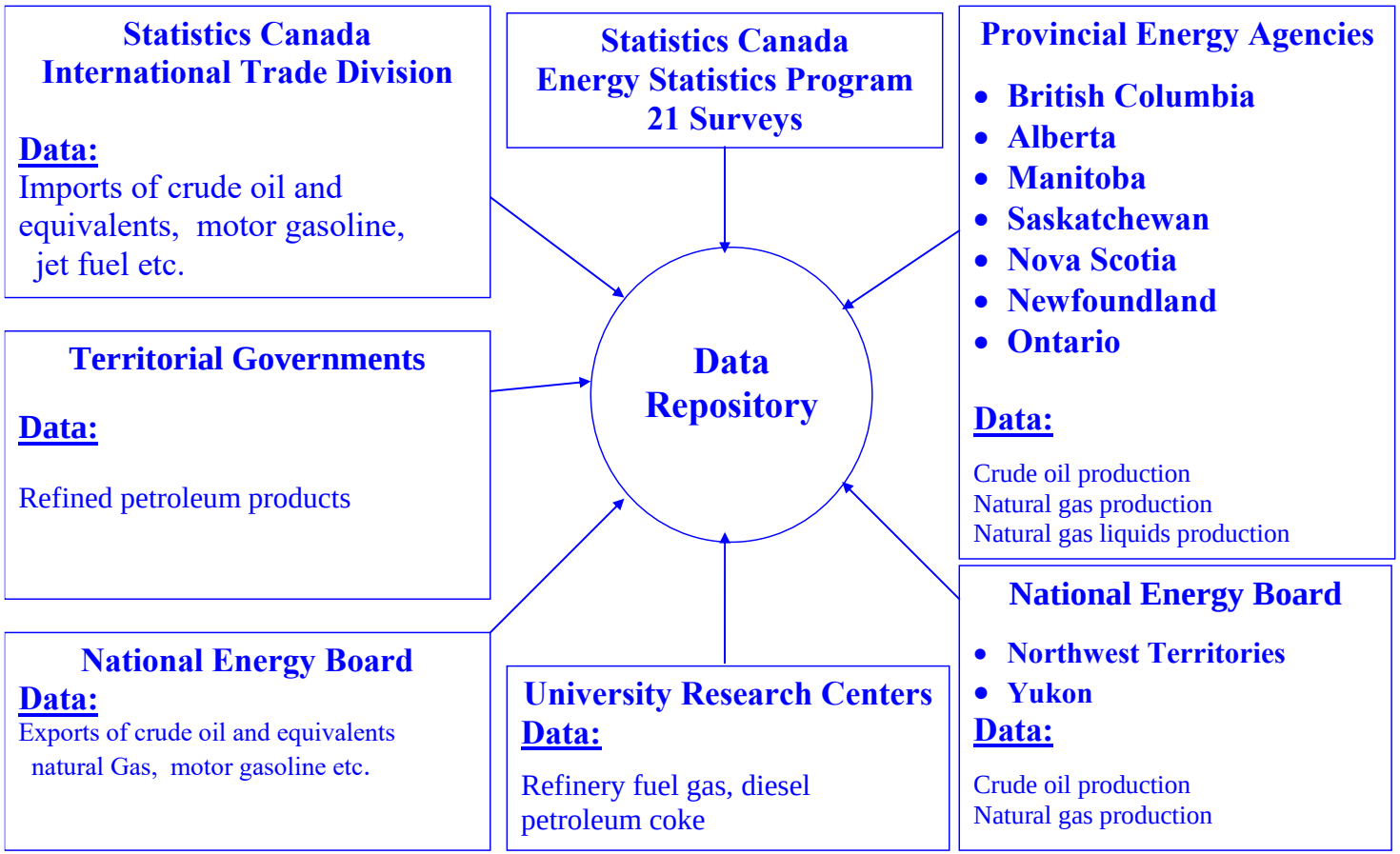
National Energy Board
- *Economic Modeling*

International Energy Agency
- *International Reporting Requirements*

Industry Associations (i.e. Canadian Association of Petroleum Producers)

Media, Academia, Researchers and the Public

Energy Statistics Data Partnerships



Statistics Canada: Energy Statistics Program

Mostly censuses, depending on the numbers of existing businesses

9 monthly surveys

12 annual surveys

Key information:

Supply and demand of energy in volume, by type of fuel

Supply: *Production, import, inventory, transformation, transportation and distribution*

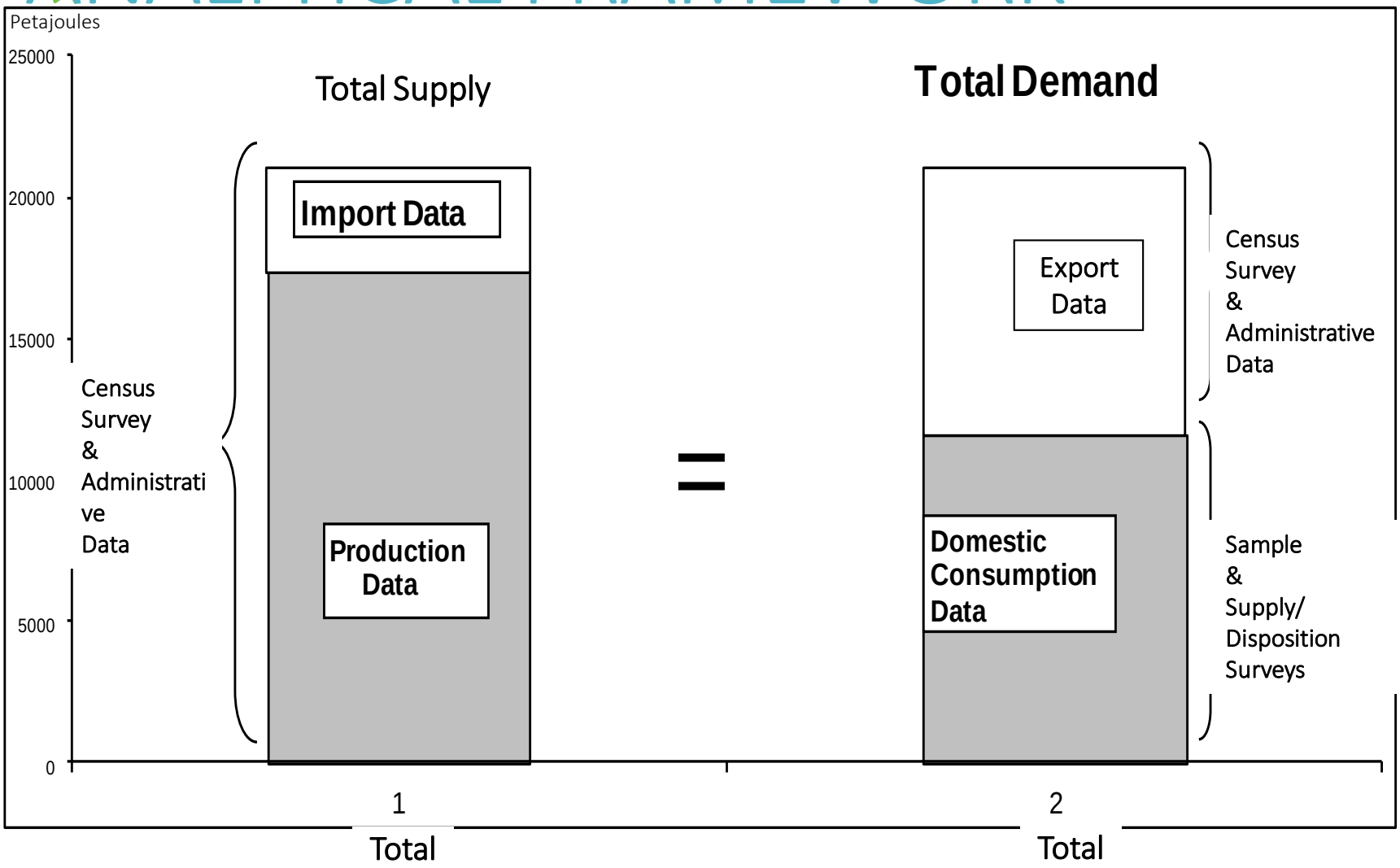
Demand: *domestic use, export*

Financial information

Report on Energy Supply and Demand (RESD)

Integrated set of energy balance sheets (natural units and terajoules)

ANALYTICAL FRAMEWORK



Coal and Coke Surveys

Production, imports, exports, stocks, supply and disposition, and operating revenues for coal mines in Canada.

Coal Monthly (# 2147 *):

On a calendar month basis, the survey collects data on coal production and disposition from all producing coal mines in Canada.

Coal Annual (# 2177):

On a calendar year basis, the survey collects data from all coal mines operating in Canada with sales in excess of one million dollars.

Coke Monthly (# 2003):

On a calendar month basis, the survey collects information from all coal coke plants in Canada on coal coke production and disposition, and coal charged to coke ovens.

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Crude Oil and Natural Gas Surveys (1)

Production and extraction of crude oil in Canada, including production statistics, final destination of crude oil, and the surplus and disposition of crude oil.

Crude Oil and Natural Gas (# 2198):

This monthly survey **uses administrative data** provided by federal, provincial and territorial authorities responsible for the regulation of crude oil and natural gas production

Data are compiled on crude oil and natural gas production, net withdrawals, imports and exports, domestic deliveries, inventory change for Canada and the provinces and territories.

Crude Oil and Natural Gas Surveys (2)

- Natural Gas Transmission (#2149);
- Natural Gas Storage (#5210);
- Natural Gas Distribution (#5215):

These monthly surveys collect data on the activities of Canadian natural gas distributors, transporters and storage facilities.

Data collected covers a wide range of information such as: direct sales, opening and closing inventories, injections and associated revenues, imports and exports.

For 5215, the sale to residential, commercial and industrial customers is under consideration.

Crude Oil and Natural Gas Surveys (3)

- Natural Gas Disposition (# 2167):

  The annual survey is referred to as the 'Annual End-Use of Natural Gas'.

  This survey collects data on the activities of Canadian natural gas distributors.

  Data collected cover sales (in volume) to final customers, in manufacturing, mining, construction, services industries, commercial services, as well as, the residential sector.

Crude Oil and Natural Gas Surveys (4)

- Natural Gas Transport and Distribution (#2180):

  This annual survey collects data on the general position of Canadian companies primarily engaged in the transportation and distribution of natural gas.

  The survey collects financial, employment, income and balance sheet information as well as engineering and operating statistics.

- Oil and Gas Extraction (#2178):

  This annual survey is funded by the Canadian Association of Petroleum Producers.

  This survey collects information on Canadian companies involved in the oil and gas exploration, development and production industry.

  The survey collects financial, income and balance sheet information, as well as, operating statistics.

Petroleum products surveys

Mongolia plans major investment in oil refinery and oil pipeline.

At Statistics Canada, there are two annual surveys (#2168 and #5168) and one monthly survey (#2150).

The three surveys cover supply of and demand for refined petroleum products , including refinery inputs, production, imports and exports, domestic sales, and inventory levels by province.

Monthly Refined Petroleum Products Survey is a key survey and covers refinery production by fuel type (i.e. Propane, aviation, motor gasoline , diesel , oils, kerosene etc.)

Pipeline Surveys(1)

Natural gas and crude oil transmission and distribution to ultimate consumers through pipelines, including data on receipts and disposition of natural gas to the residential, commercial, and industrial sectors.

- **Monthly Oil Pipeline Survey (#2191):**

  Covers all pipelines operating within provincial boundaries receiving and delivering crude oils, liquefied petroleum gases (propane, butane and ethane) and refined petroleum products.

  Pipelines are prohibited by license from transporting oil across provincial and national boundaries.

  Data collected cover receipts and disposition of crude oil and equivalent products, foreign crude oil, supplies held in pipelines /terminals etc.

Pipeline Surveys(2)

- **Annual Oil Pipeline Survey (#2179):**

  This survey collects data on the general position of Canadian companies primarily engaged in the gathering and transportation of crude oil and other petroleum

  The survey collects financial, employment, income and balance sheet information as well as engineering and operating statistics.

Consumption of Energy Survey

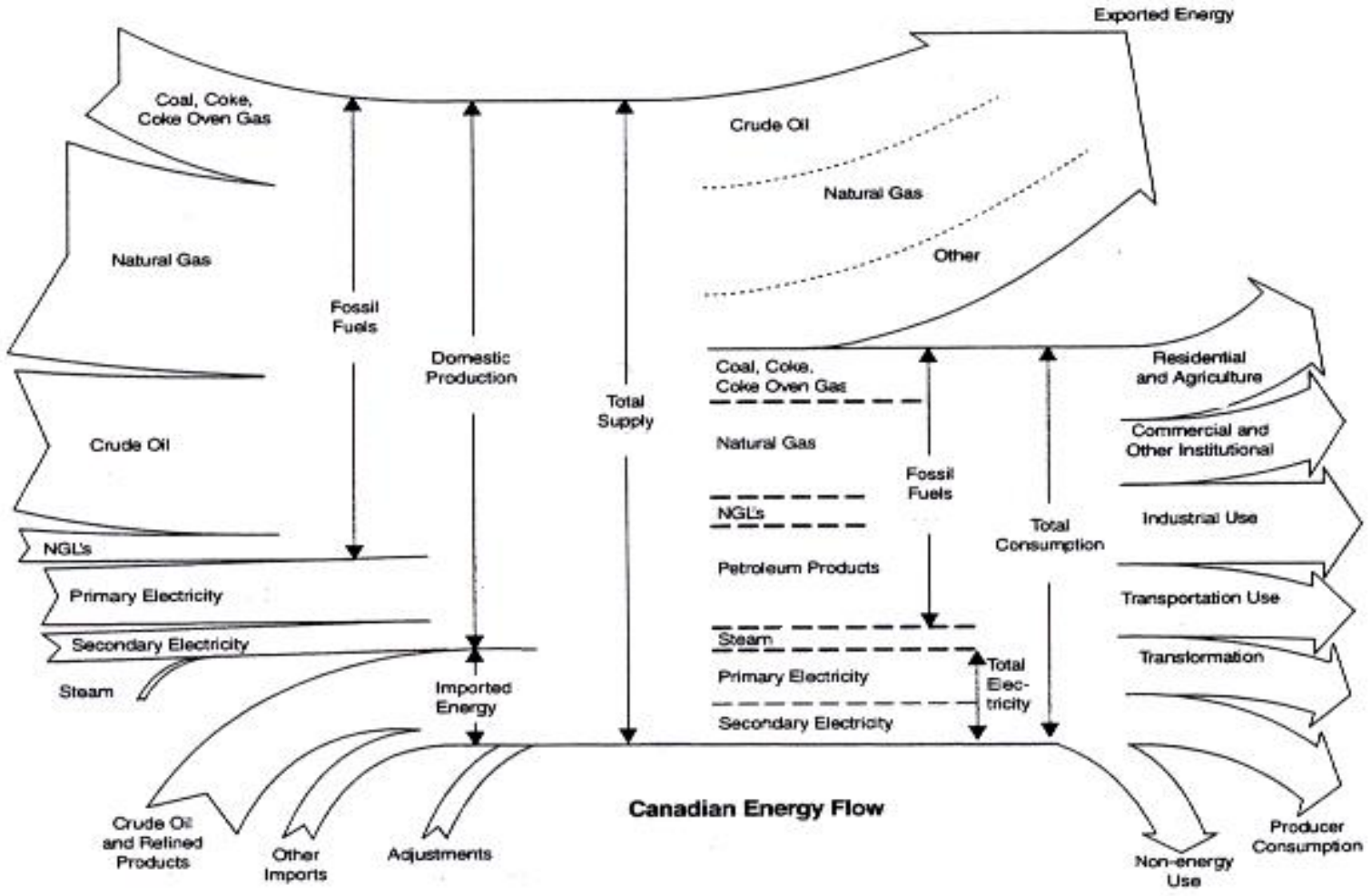
Consumption of various energy commodities such as electricity, natural gas, propane, diesel, wood, coal, steam, etc. Data on the different uses of energy commodities: e.g. as fuel, to produce steam for sale, to produce electricity, and for non-energy use

Industrial Consumption of Energy (# 5047):

This annual survey is funded by Natural Resources Canada and Environment Canada. It provides estimates of energy consumption by manufacturing establishments in Canada.

Data are compiled based on a sample of approximately 3,000 manufacturing establishments.

CANADIAN ENERGY FLOWS



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Thank you