

# Cheat Sheet

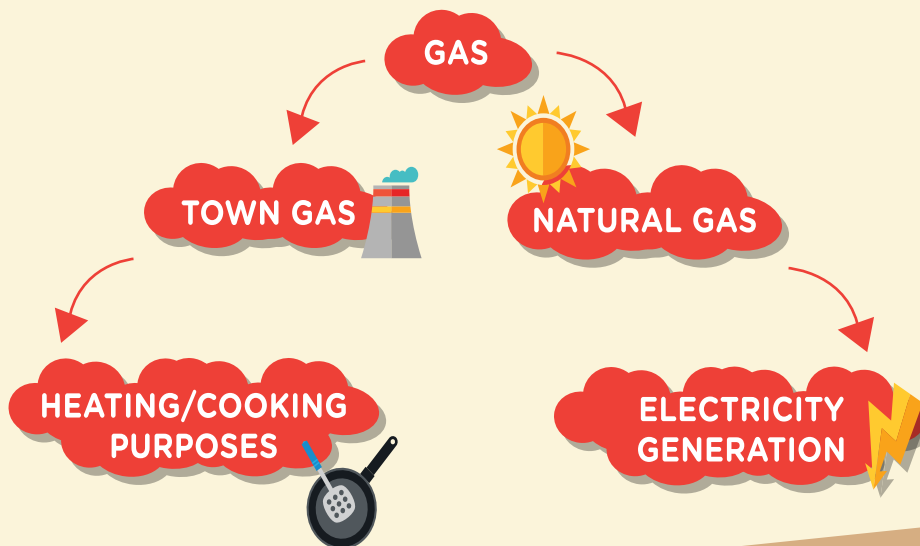
# Energy In Singapore



**Singapore imports its energy sources due to the lack of natural resources.**

Where do energy sources come from?

In Singapore, energy comes mainly from gas. There are 2 different functions of gas:



## Energy Market Authority (EMA)

The EMA is a statutory board under the Ministry of Trade and Industry. It is the government body in charge of energy in Singapore.

## Electricity generation from past to present

In the 1990s<sup>1</sup>, electricity in Singapore was generated using fuel oils. Singapore then shifted to using natural gas which is less pollutive.

**Shift from fuel oil to natural gas**

## Use of Piped Natural Gas (PNG)

Singapore started to import PNG from Malaysia and Indonesia.

In 2006, Singapore decided to import LNG to diversify its energy sources<sup>2</sup> and ensure a sufficient supply.

In May 2013<sup>2</sup>, the LNG terminal was built with the purpose of storing LNG gas

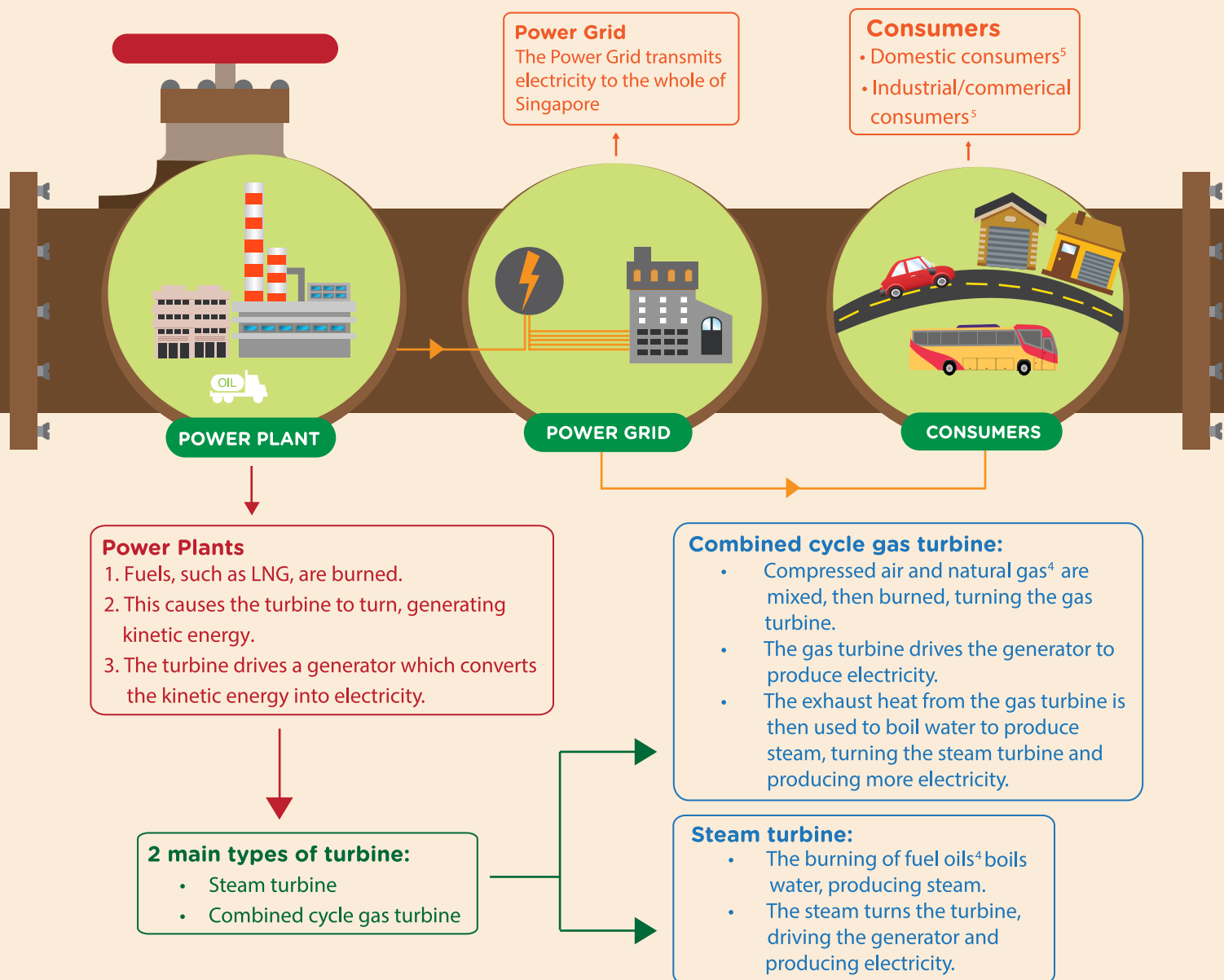
## Use of Liquefied Natural Gas (LNG)

### Did you know?

The St. James Power Station, built in 1927<sup>3</sup>, generated electricity via coal firing. It was decommissioned in the 1970s<sup>3</sup> as it could no longer meet Singapore's demand for electricity.

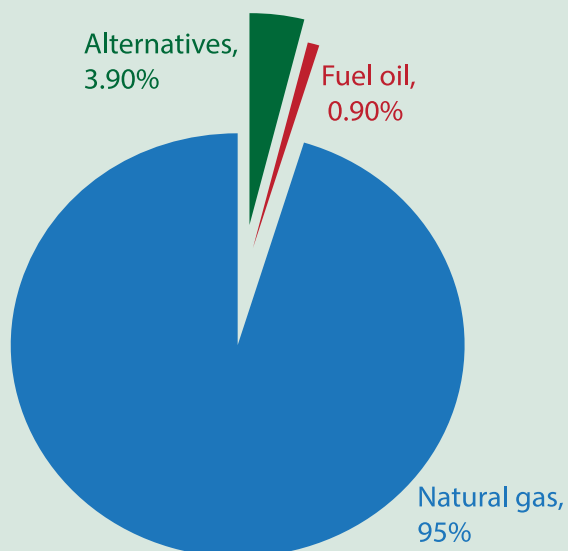


# How is electricity generated in Singapore?



## Sources of electricity

In Singapore, electricity is generated from several sources:



In Singapore, other than fuel oils and natural gas, a small percentage of electricity is also generated from non-traditional sources mainly solar and waste-to-energy (WTE).



Data is obtained from the following source:  
Energy Market Authority (EMA), (2014), Fuel Mix for Electricity Generation, Singapore Energy Statistics 2014.

### Search tips on the topic 'energy'

To obtain more effective results in your search efforts, use the recommended keywords and sequences as shown below. The search engines will match the keywords to those found on the title of webpages, sites, and contents. For this topic, the main keywords are 'energy' and 'Singapore'. You may add additional keywords to search for more specific types of information sources such as portal, policy report, statistics and introduction report.

Keywords and sequence : Energy Singapore portal

Results: the search engine matches with the title of the portal as follows:

**Energy in Singapore | Energy Portal** \*  
[www.energyportal.sg/History/Energy-in-Singapore.html](http://www.energyportal.sg/History/Energy-in-Singapore.html) ▾  
Aug 22, 2013 - **Energy Awareness Portal** - Made Simple For You. ... From the time the first electric street lamp lit up in **Singapore** in 1906, electricity has been a ...

This energy portal has a trove of interesting facts about energy in Singapore.

Keywords and sequence: Energy Singapore statistics

Results: the search engine matches the title of the publication by Energy Management Authority

**EMA : Singapore Energy Statistics** \*  
[https://www.ema.gov.sg/Singapore\\_Energy\\_Statistics.aspx](https://www.ema.gov.sg/Singapore_Energy_Statistics.aspx) ▾  
Oct 27, 2014 - The **Singapore Energy Statistics** is an annual publication by the EMA providing key **statistics** of **Singapore's energy** sector. It includes **statistics** ...

You can find the latest statistics relating to energy including prices!

Keywords and sequence: Energy Singapore policy report

Results: the search engine matches the title of the report by the Ministry of Trade and Industry

**[PDF] National Energy Policy Report - Ministry of Trade and Industry** \*  
[www.mti.gov.sg/ResearchRoom/Documents/app.../NEPR%202007.pdf](http://www.mti.gov.sg/ResearchRoom/Documents/app.../NEPR%202007.pdf) ▾  
role that **energy** plays in sustaining **Singapore's** economic growth and improving the lives of Singaporeans. This **report** chronicles our efforts at formulating a ...

Outlines Singapore's strategies to meet the global challenges and sustained supply.

Keywords and sequence: Energy Singapore introduction

Results: the search engine matches the keywords to the publication title of a handbook

**[PDF] Introduction to the National Electricity Market of Singapore** \*  
[https://www.ema.gov.sg/cmsmedia/Handbook/NEMS\\_111010.pdf](https://www.ema.gov.sg/cmsmedia/Handbook/NEMS_111010.pdf) ▾  
**Introduction** to the National Electricity Market of **Singapore** – Oct 2010 .... The EMA was established under the **Energy Market Authority of Singapore Act** and the.

This handbook contains an overview of renewable energy in Singapore.

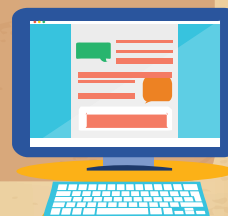
*\*Screen grabs from Google search results. There are other search engines which you can use too.*

## Finding resources in NLB's collection using OneSearch

NLB's OneSearch enables you to find resources in print and online formats.  
The URL is as follows: <http://search.nlb.gov.sg/>

You may use these keywords in your search strategies:

Power resources Singapore  
Energy policy Singapore



In NLB, the Call Number for books on this topic is 333.79095957.

Recommended titles:

Energy perspectives on Singapore and the Region.  
Institute of Southeast Asian Studies, 2007.



RSING 333.79095957 ENE

This book describes energy issues and trends in Singapore, Southeast Asia and the wider region.

Singapore Energy Statistics: Energising our Nation.  
Energy Market Authority, 2011, ed.

RSING 333.79095957 SES

This book provides data on Singapore's energy supply and the various sectors that support this industry.



### References:

<sup>1</sup> Chua, G. (2011, November 8). *Singapore's Energy Evolution*. *The Straits Times*.

<sup>2</sup> Piped Natural Gas and Liquefied Natural Gas. (2014). Energy Market Authority, Singapore. Retrieved from [https://www.ema.gov.sg/Piped\\_Natural\\_Gas\\_and\\_Liquefied\\_Natural\\_Gas.aspx](https://www.ema.gov.sg/Piped_Natural_Gas_and_Liquefied_Natural_Gas.aspx)

<sup>3</sup> Ramlan, N. (2010). St. James Power Station. Retrieved from [http://eresources.nlb.gov.sg/infopedia/articles/SIP\\_1712\\_2010-10-15.html](http://eresources.nlb.gov.sg/infopedia/articles/SIP_1712_2010-10-15.html)

<sup>4</sup> Energy Market Authority (EMA). (2014). *Fuel Mix for Electricity Generation*. *Singapore Energy Statistics 2014*.

<sup>5</sup> How is electricity generated? (2013). Energy Portal. Retrieved from <http://www.energyportal.sg/EnergyUsage/How-is-electricity-generated.html>

<sup>6</sup> National Environment Agency (NEA). (2011). *Waste Management 101*. *Envision*. Retrieved from <http://www.nea.gov.sg/docs/default-source/training-knowledge-hub/first-issue's-pdf.pdf?sfvrsn=0>

<sup>7</sup> Overview of Gas Market. (2014). Energy Market Authority, Singapore. Retrieved from [https://www.ema.gov.sg/Gas\\_Market\\_Overview.aspx](https://www.ema.gov.sg/Gas_Market_Overview.aspx)

<sup>8</sup> (2013). Energy Portal. Retrieved from <http://www.energyportal.sg/index.html>

<sup>9</sup> Inner Workings of a Combined-Cycle Power Plant. (2014). *Power Generation*. General Electric. Retrieved from <https://powergen.gepower.com/plan-build/tools-resources/power-generation-basics/combined-cycle-power-plants.html>

<sup>10</sup> Electricity Market. (2013). Energy Portal. Retrieved from <http://www.energyportal.sg/EnergyMarket/Electricity.html>

<sup>11</sup> Energy Market Authority (EMA). (2014). *Singapore Energy Statistics 2014*.