



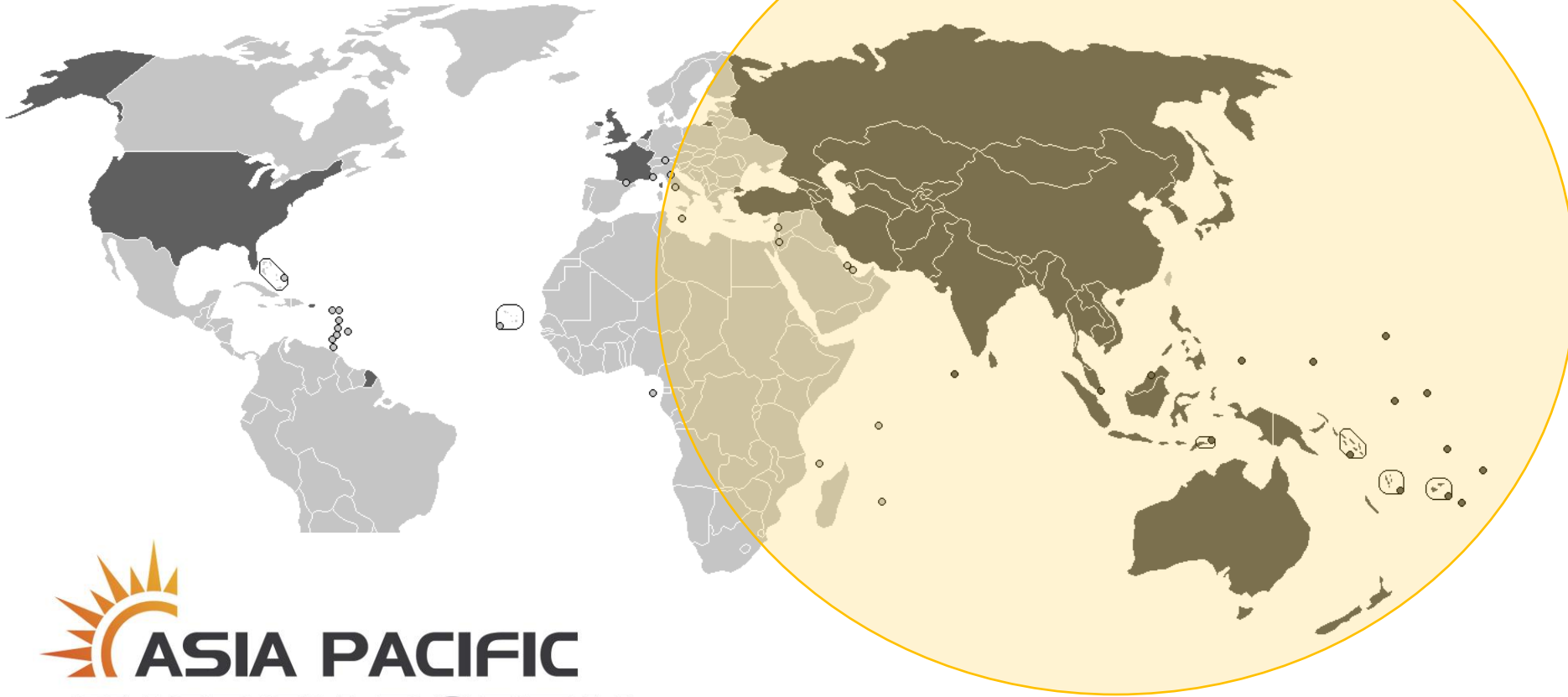
ENERGY INFORMATION FOR THE ASIA-PACIFIC REGION





UNITED NATIONS
ESCAP

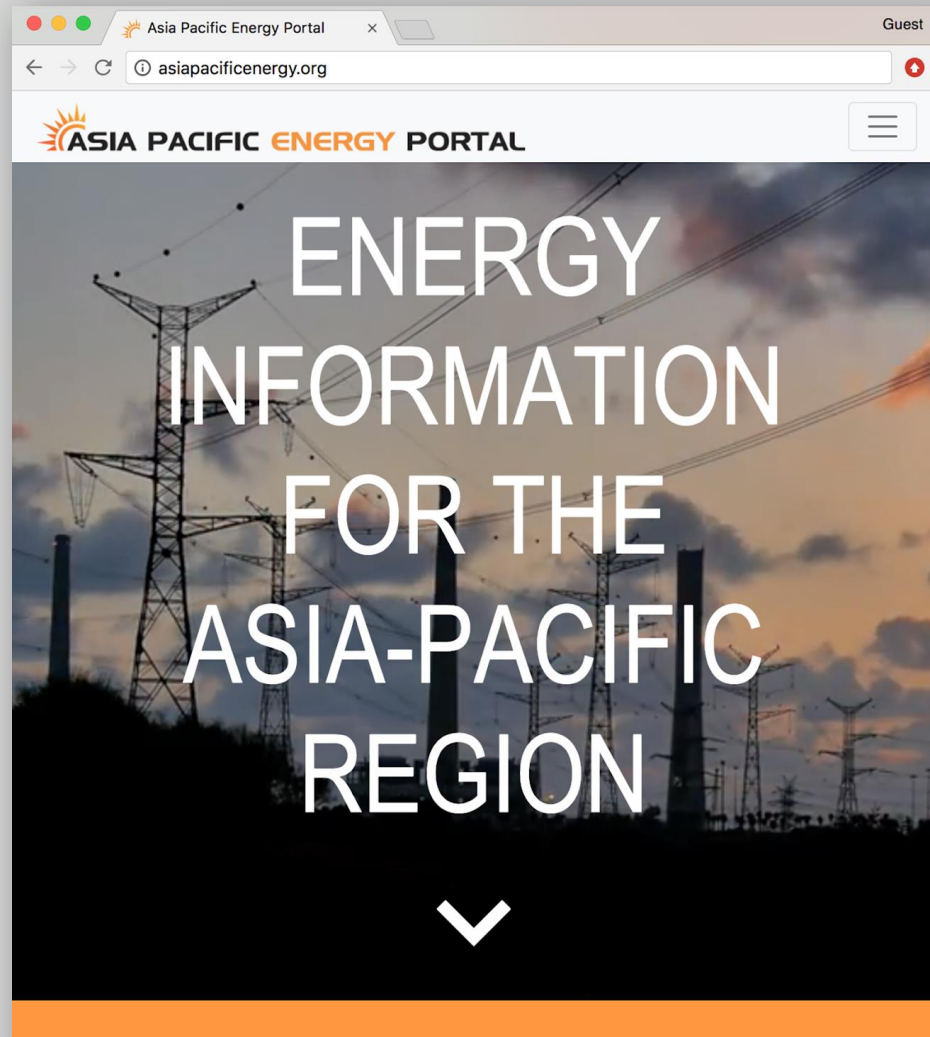
Economic and Social Commission for Asia and the Pacific



**ASIA PACIFIC
ENERGY PORTAL**

www.asiapacificenergy.org

ONE-STOP AGGREGATOR OF STATISTICS, POLICY, INFRASTRUCTURE



► asiapacificenergy.org

- Access
- Renewables
- Efficiency
- Environment
- Fossil fuels
- Trade
- Investment

3,000+
policy and programme
documents that can
be searched and
compared within an
interactive library

200+
data sets from
seven leading data
providers integrated
into one interface

7,000+
power plants
mapped with
associated metadata

DATA: INDICATORS, COMPARISON & TRADE FLOWS

Supports research, analysis, and, ultimately, informed decision-making for current and future development efforts

INDICATORS: review past national progress and trends

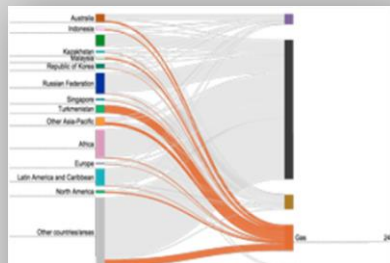
COMPARISON: view national progress within broader global/regional contexts

TRADE FLOWS: national and regional energy imports and exports, based on UN Comtrade data

- Data visualization interface is low-friction, making mapping and charting of regional and national data quick and easy.
- All charts can be downloaded or shared through a unique URL
- All data is interactive and tied to a timeline to support research needs and identify shifts and trends within the energy sector.



200+
data
sets



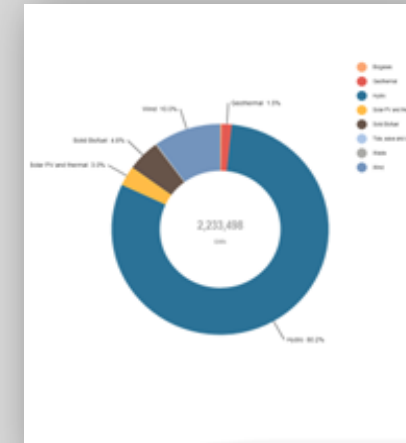
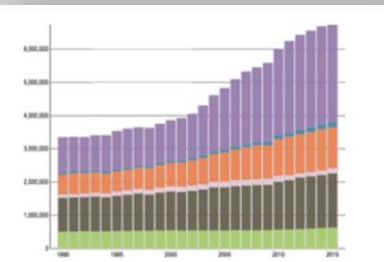
TRADE FLOWS

Access flow diagrams for national and regional energy imports and exports, based on UN Comtrade data.



INDICATORS

Interact with data through chart visualizations for more than 200 data sets from leading international data providers.



COMPARISON

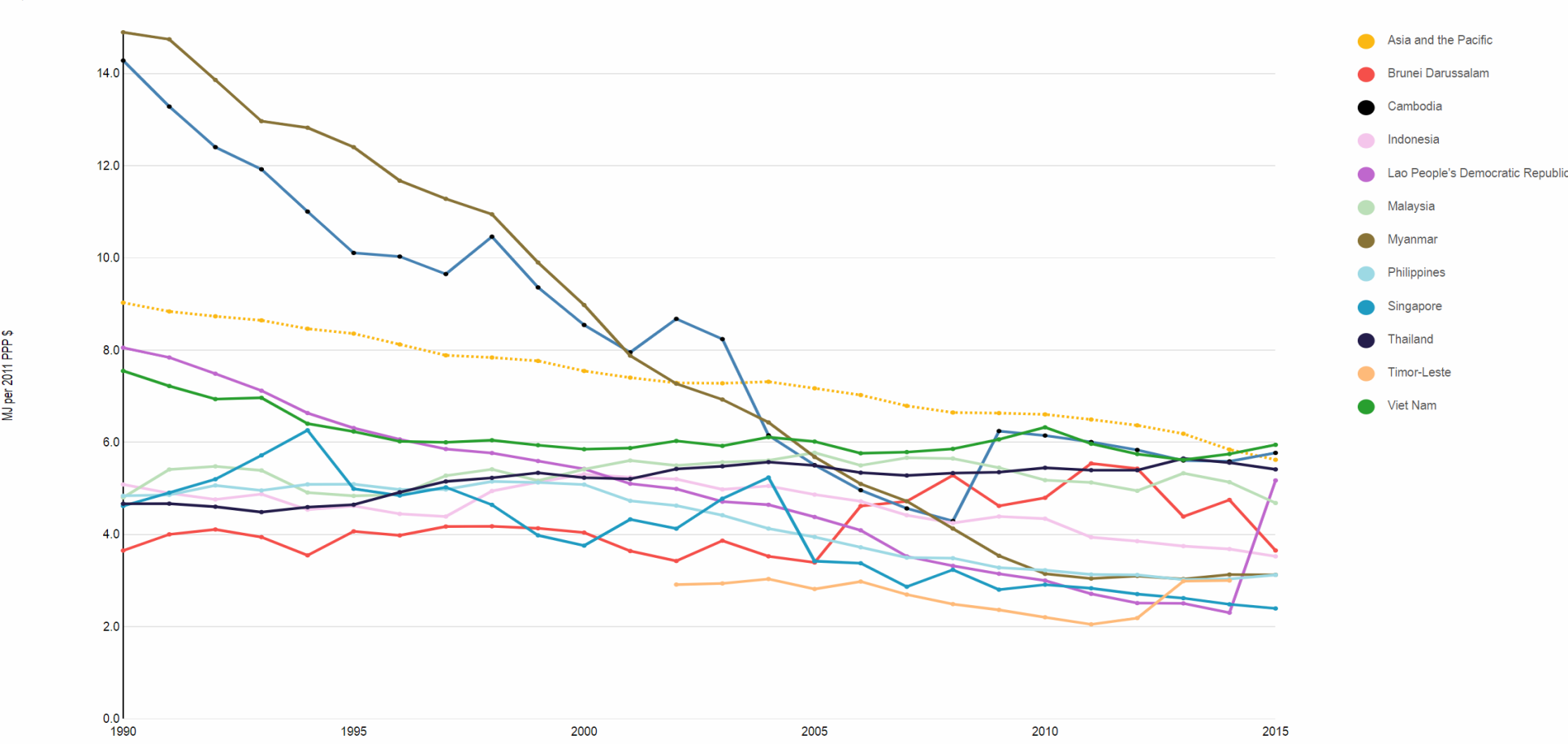
Create a custom data set comparison table. Choose your own indicators and countries.

DATA: INDICATORS, COMPARISON & TRADE FLOWS

Search Indicators...

Show no data on legend ▾ A to Z ▾

Energy Intensity, 1990-2015
MJ per 2011 PPP \$



Source : IEA and UN Statistics

1990 : 2015


POLICY: SEARCH, TIMELINES, MATRIX & COUNTRY PAGES

The Portal is the largest energy policy database available for Asia and the Pacific

- SEARCH:** text enabled search and filter function, enables easy access to the database
- TIMELINES:** easily navigate policy timelines and view the progression of policy and regulation implementation over time
- MATRIX:** provides an immediate glimpse on policy content by creating a “heatmap” of policy attributes by country.
- COUNTRY PAGES:** access an overview of major policies and initiatives for each country to give you a general “profile” of that member state
- Enables policy information exchange and supports regional cooperation among Asia-Pacific leaders.
 - The policy section of the Portal is a tool to support analysis and comparison of policy documents, but it does not replace the carrying out of in-depth research and analysis.

- ▶ Access
- ▶ Renewables
- ▶ Efficiency
- ▶ Environment
- ▶ Fossil fuels
- ▶ Trade
- ▶ Investment





Policy Search

Use a smart search function to locate policies, programme information, and more. Search keywords over thousands of documents and filter results by country, scope, and other attributes.




Policy and Programme Highlights

Thailand is a developing South East Asian country extended over an area of 513,120 km² with over 65 million people in 2014. Although exposed to the 2008 energy crisis, the country's economy is recovering, as shown by a 3.8% of GDP increase in 2010. The **Thailand Integrated Energy Blueprint (TIEB)** is the most recent policy approach. Through the TIEB, the country is expanding the energy sector through innovative and integrated means that combine the use of renewable energy with energy efficiency to satisfy increased energy demand, whilst managing energy security and environmental concerns. The overall blueprint integrates the **Power Development Plan (2010-2015)**, the **Energy Efficiency Plan (2010-2015)**, the **REAP 2010**, the **Alternative Energy Development Plan 2010-2015** (AEDP 2010), as well as the **CEP Plan 2010** and the **Gas Plan 2010**. The development plans are aligned with the 11th National Economic and Social Development Plan (2010-2015), which focuses on the concept of "Sufficiency Economy" and where human development is placed to achieve sustainable development. In late 2010, the **11th National Economic and Social Development Plan 2010-2015** was released, outlining its focus on the concept of Sufficiency Economy.


Primary Energy Supply by Product in Thailand, 2010






Policy Timelines

Plot national policies on timelines according to themes such as energy access, efficiency, and renewables.



Click here to Expand All

	Afghanistan	American Samoa	Armenia	Australia	Azerbaijan	Bangladesh
Access						
EA1: Energy access priorities	1	2	3	4	5	15
EA2: Energy access action plan	1	2	3	4	5	15
EA3: Energy access targets	1	2	3	4	5	15
EA4: Energy service quality targets	1	2	3	4	5	15
EA5: Clean cooking solutions	1	2	3	4	5	15
EA6: Consumer subsidies	1	2	3	4	5	15
EA7: Bi-, multi-lateral mechanisms to expand access	1	2	3	4	5	15
Efficiency						
EE1: EE priorities	1	2	3	4	5	15
EE2: EE targets	1	2	3	4	5	15
EE3: EE action plans	1	2	3	4	5	15
EE4: EE standards for appliances	1	2	3	4	5	15
EE5: EE lighting and mechanical system standards	1	2	3	4	5	15
EE6: EE labelling	1	2	3	4	5	15
EE7: EE industry standards	1	2	3	4	5	15
EE8: EE building standards	1	2	3	4	5	15
EE9: EE transport standards	1	2	3	4	5	15

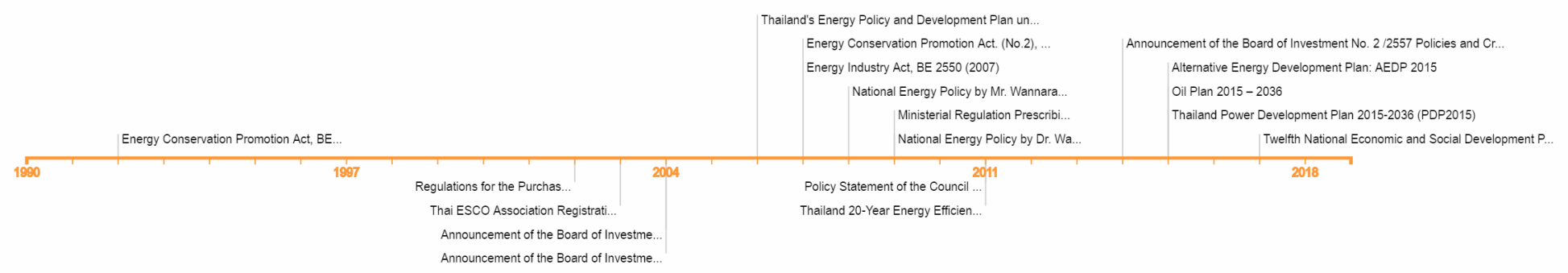


Policy Matrix

Quickly locate policy content categorized under more than 100 attributes, such as energy access priorities, renewable energy targets, and energy efficiency action plans.

- Filters
- > Category
- Access 6
 - Efficiency 18
 - Energy Supply and Infrastructure 9
 - Environment 11
 - Governance 8
 - Investment 13
 - Pricing 11
 - Renewable Energy 11
 - Technology 9
 - Trade 6

Thailand Energy Efficiency Policy and Regulation, 1990-2019



1990 : 2019

Countries

-
-
- Afghanistan
-
- American Samoa*
-
- Armenia
-
- Australia
-
- Azerbaijan
-
- Bangladesh
-
- Bhutan
-
- Brunei Darussalam
-
- Cambodia
-
- China
-
- Cook Islands*
-
- DPR Korea
-
- Fiji
-
- French Polynesia*
-
- Georgia
-
- Guam*
-
- Hong Kong, China*
-
- India
-
- Indonesia
-
- Iran (Islamic Rep. of)
-
- Japan
-
- Kazakhstan
-
- Kiribati
-
- Kyrgyzstan
-
- Lao PDR
-
- Macao, China*

Effective date in: 1990-2019

DOCUMENT SEARCH

efficiency



Search

☒ Title ☒ Content

Search found 1716 items

Title	Effective Start Year	Effective End Year	Agency
AFGHANISTAN: Energy Efficiency Guidebook for Buildings ... translation available. Renewable Energy Department Energy <i>Efficiency</i> Guidebook for Buildings-1-100.pdf Energy ... <i>Efficiency</i> Guidebook for Buildings-101-177.pdf The Energy <i>Efficiency</i> Guidebook for Buildings stipulates ... Energy <i>Efficiency</i> measures and utilization of Renewable Energy Technologies in Buildings.	2017		The Ministry of Energy and Water and GIZ
REPUBLIC OF KOREA: Korea's Energy Standards & Labelling- Market Transformation ... Low Carbon Green Growth; II. Three Major Energy <i>Efficiency</i> Programs; III. Promotion of High- <i>efficiency</i> ... Appliances; IV. Accomplishments over the 19 years of Implementing Energy <i>Efficiency</i> Management Policies; V. ... Market Transformation through High- <i>efficiency</i> Appliances; VI. International Cooperation on Energy Saving ... Activities; VII. International Energy <i>Efficiency</i> Standards and Labeling.	2013		Ministry of Knowledge Economy and Korea Energy Management Corporation
INDIA: Energy Conservation Building Code User Guide ... No No 2009 2009 National Other Building All Bureau of Energy <i>Efficiency</i> Bureau of Energy ... <i>Efficiency</i> ECBC-User-GuidePublic.pdf This document provides detailed guidance on implementing the Energy	2009		Bureau of Energy Efficiency
VIET NAM: Decision No. 75/2006/QD-BTC Promulgating codes of national target programs on the economical and efficient utilization of energy ... and <i>efficient</i> utilization of energy.pdf A Decision promulgating codes of national target programs on ... the economical and <i>efficient</i> utilization of energy.	2005		The Ministry of Finance
VIET NAM: Decision No. 40/2005/QD-BXD Promulgating Vietnamese construction standard: QCXDVN 09: 2005 "Energy Efficiency Building Code" ... 2005 "Energy <i>Efficiency</i> Building Code".pdf A Decision promulgating Vietnamese construction standard: ... QCXDVN 09: 2005 "Energy <i>Efficiency</i> Building Code".	2005		The Ministry of Construction
VIET NAM: Circular No. 01/2004/TT-BCN guiding the thrifty and efficient use of energy by production establishments ... PHÁP LUẬT (VN) Circular No. 01:2004:TT-BCN guiding the thrifty and <i>efficient</i> use of energy by ... production establishments.pdf A Circular guiding the thrifty and <i>efficient</i> use of energy by production	2004		The Ministry of Industry
VIET NAM: National Technical Regulation on Energy Efficiency Buildings ... Vietnam Green Building Council National Technical Regulation on Energy <i>Efficiency</i> Buildings.pdf This ... National Technical Building Energy <i>Efficiency</i> Building Code provides mandatory technical standards to ... achieve energy <i>efficiency</i> in the design, new construction or retrofit of civil buildings (office	2017		Vietnam Association of Civil Engineering Environment, the Department of Science,Technology, the Environment Department, and the Ministry of Construction
NEW ZEALAND: ENERGY STAR® ... energy <i>efficiency</i> within their category. It's a voluntary programme where industry partners identify and ... promote superior energy <i>efficient</i> products. If you're an ENERGY STAR partner or interested in becoming ... <i>Efficiency</i> and Conservation Authority (EECA) EECA ENERGY STAR®.pdf EECA awards the ENERGY STAR® mark to ... products and appliances with superior energy <i>efficiency</i> within their category. It's a voluntary programme	2005		Energy Efficiency and Conservation Authority (EECA)
AUSTRALIA: Commercial Building Disclosure Program (CBD) ... <i>efficiency</i> and greenhouse emissions data. This is creating a more informed commercial property market, and ... encour... 1990 : 2019 ... <i>efficient</i> buildings and reduced emissions. What is CBD? The CBD Progr...	2010		Australian Government- Department of Industry and Science

THAILAND: Thailand 20-Year Energy Efficiency Development Plan (2011 - 2030)

Meta Data
Draft: No
Revision of previous policy?: No
Draft Year: 2011
Effective Start Year: 2011
Effective End Year: 2030
Scope: National
Document Type: Plan/Strategy
Economic Sector: Energy
Energy Types: All
Issued by: The Royal Thai Government (RTG) - Ministry of Energy
Source: Ministry of Energy
File:  EEDP_Eng.pdf  Energy Efficiency Development Plan (EEDP) 2015-2036 .pdf
Overall Summary: The Energy Conservation Development Plan aims to reduce energy intensity and consumption. The most important sectors where energy conservation is tackled are transportation (13,400 ktoe in 2030) and the industrial sector (11,300 ktoe in 2030). The Plan provides for background information, targets and strategies to achieve them. In particular, it addresses: Energy Demand Situation and Trend; Energy Conservation Potential; Framework of the 20-Year Energy Efficiency Development Plan (2011-2030); Framework of the First 5-Year Work Plans; EEDP Mobilization and Success Factors.

Efficiency
EE priorities: Promoting traveling by mass transit systems and goods transportation via highly energy-efficient logistics systems.
EE targets: Reduce energy intensity by 25% in 2030, based on 2005 level; or equivalently reduce final energy consumption by 20% in 2030, or about 30,000 ktoe. Two economic sectors that shoulder priority for energy conservation are transportation (13,400 ktoe in 2013) and industrial sector (11,300 ktoe in 2013).---Annual Targets of Final Energy Saving: Industry Total ktoe: 377(2011) 731(2012)1,100(2013) 1,482(2014) 1,899(2015). Commercial Building & Residential: Total (ktoe) 74 (2011) 142(2012) 214 (2013) 289(2014) 370(2015). Small Commercial Building & Residential: Total (ktoe) 106(2011) 207(2012) 311(2013) 419(2014) 538(2015).Transportation: Total (ktoe) 443(2011) 861(2012) 1,293(2013) 1,743(2014) 2,235(2015). Please see document for further details on energy type.
EE action plans: Strategic approaches and measures consist of the following aspects: mandatory requirements via rules, regulations and standards; energy conservation promotion and support; public awareness creation and behavioral change; promotion of technology development and innovations; human resources and institutional capability development. ---Enforcement of the Energy Conservation Promotion Act, [as amended up to] B.E. 2550 (2007).---Execution of a “voluntary agreement” to save energy between the public and commercial/industrial sectors, especially various business associations and large-scale businesses.---Support for the development of professionals in the energy conservation field to be persons responsible for energy management and operation, verification and monitoring, consultancy and engineering services provision, and the planning, supervision and promotion of the implementation of energy conservation measures.---Measure: Benchmarking the amount of energy used per unit of products (SEC) Develop the SEC database and benchmark both domestic and overseas SEC (2016-2020).--- Support the development of infrastructure contributing to traveling and goods transportation with high energy efficiency transport systems, e.g. construction of the bus rapid transit (BRT) system, double-track railway, etc.---Plan to upgrade energy efficiency of common and widely used (cross-cutting) industrial

INFRAMAPS: Powerplants, Resource Potential & LNG Terminals

Spatial data creates an ecosystem of data, revealing and visualizing new patterns and perspectives on regional energy infrastructure development

POWERPLANTS: infrastructure location answers the what, where and when of energy generation

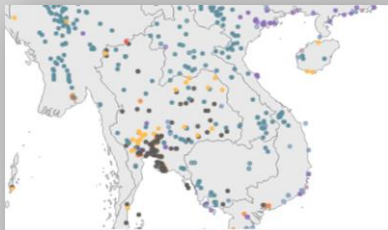
RESOURCE POTENTIAL: supports regional planning and renewable resource optimization

LNG TERMINALS: mapping of liquefaction and regasification terminals tracks uptake in LNG

- Location is critical to better understanding data and making appropriate and informed decisions;
- Analyzes spatial relationships, such as: connectivity, inclusion, and adjacency.
- Improve energy infrastructure planning and identify weaknesses or vulnerabilities in energy systems

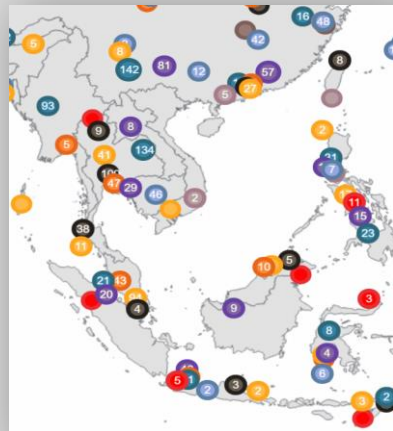


7000+
Power
Plants



POWERPLANTS

More than 7,000 power plants have mapped across the Asia-Pacific region. Interact with data points to view power plants and attributes.



LNG

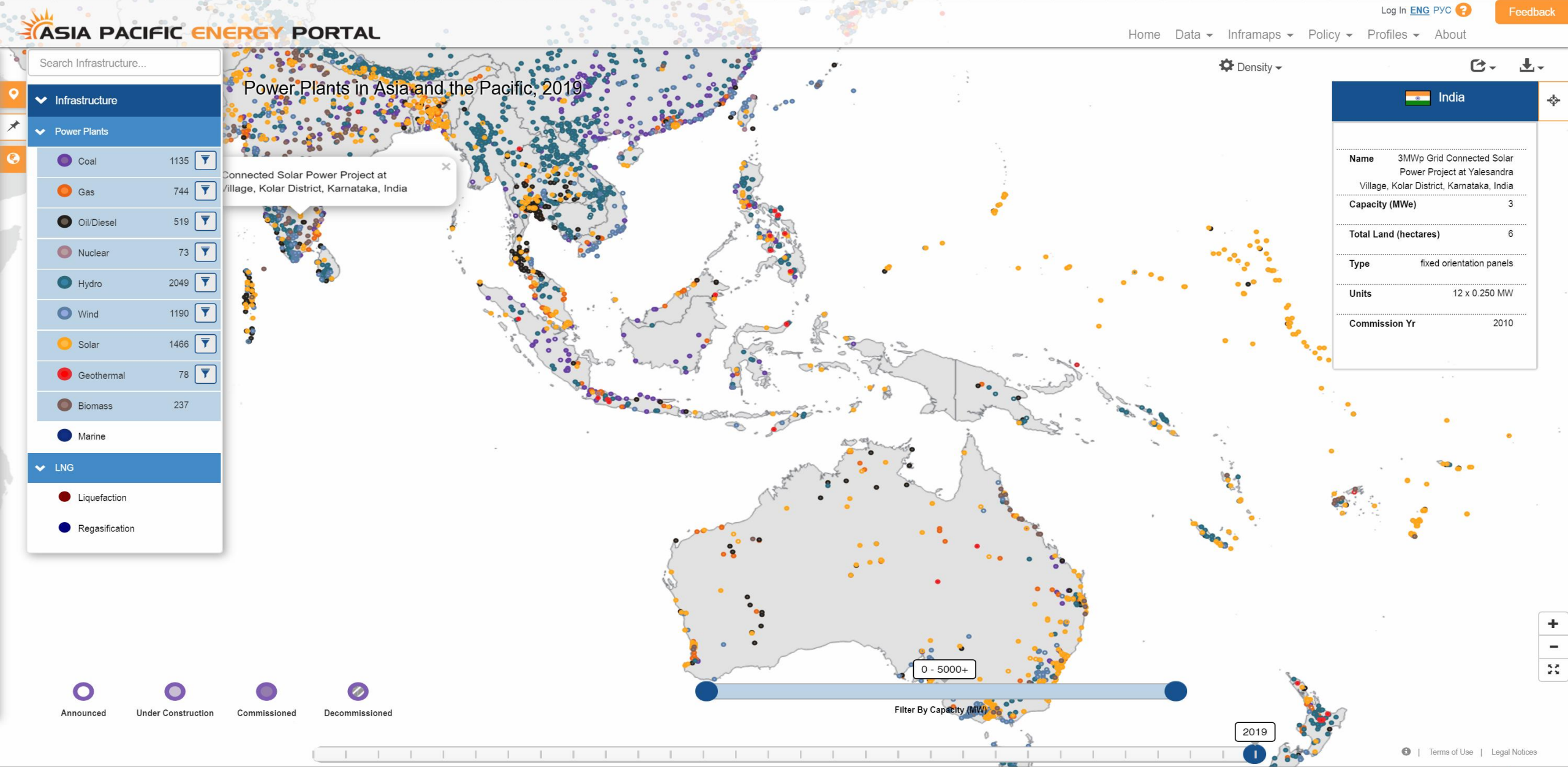
More than 60 LNG liquefaction and regasification terminals have been mapped across the Asia-Pacific region. Interact with data points to view LNG terminals and attributes.



RESOURCE POTENTIAL

Renewable resource potential has been mapped for the Asia-Pacific region. Overlay powerplant data to view resources and powerplants.

INFRAMAPS: Powerplants, Resource Potential & LNG Terminals



INFRAMAPS: FUTURE DEVELOPMENTS

LIVE DATA: AQI, PM2.5, Weather, Wind, etc.

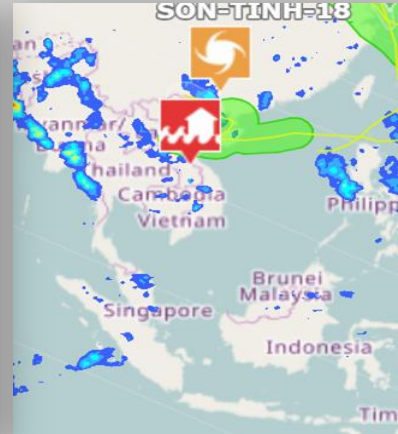
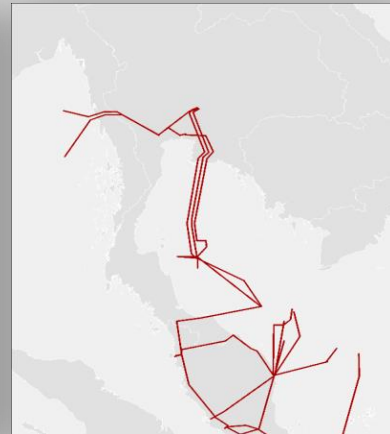
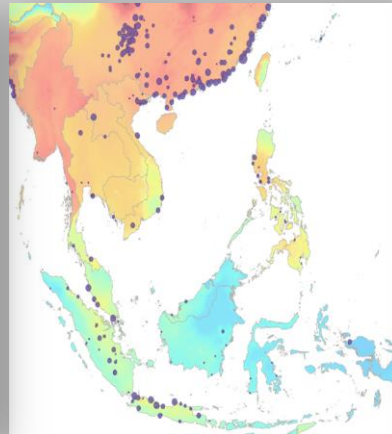
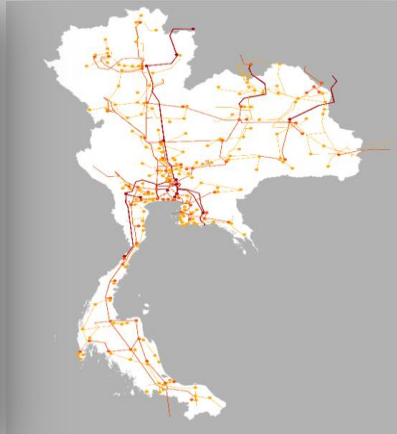
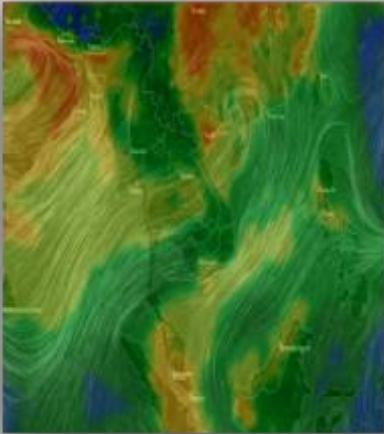
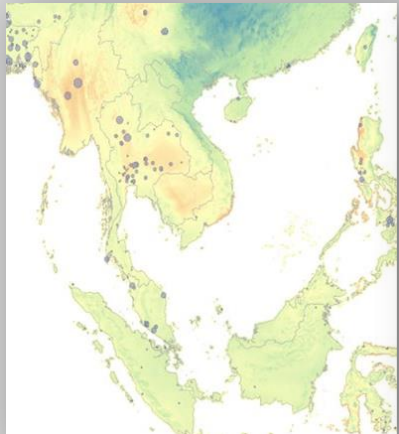
DETAILED BASEMAPS: Population Density, Access Maps, etc.

PIPELINES: supports regional planning

TRANSMISSION LINES: supports regional connectivity, and energy planning

HAZARD DATA: enables energy resilience planning

ENERGY MODELING: improves energy access, and regional connectivity planning



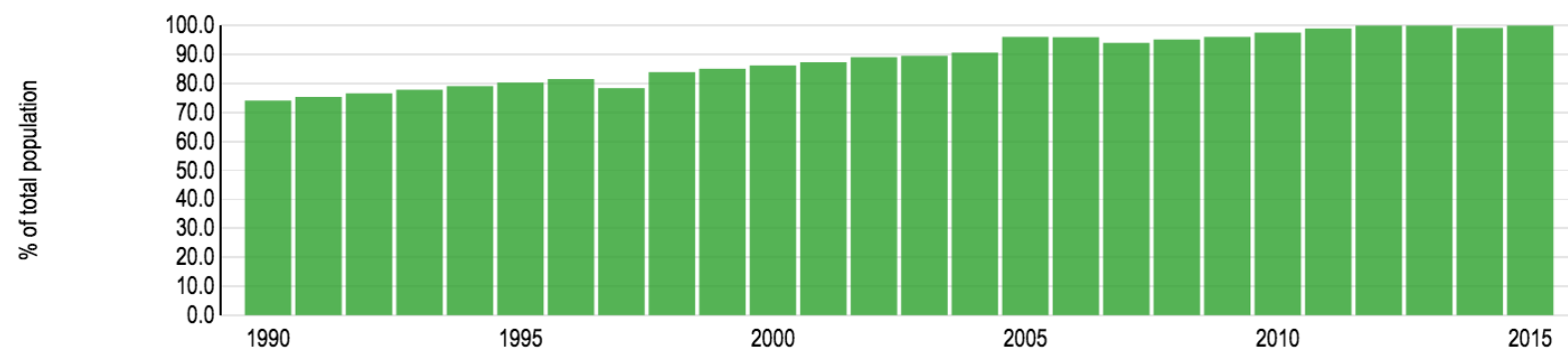
POLICY MAP

[Click here to Expand All](#)

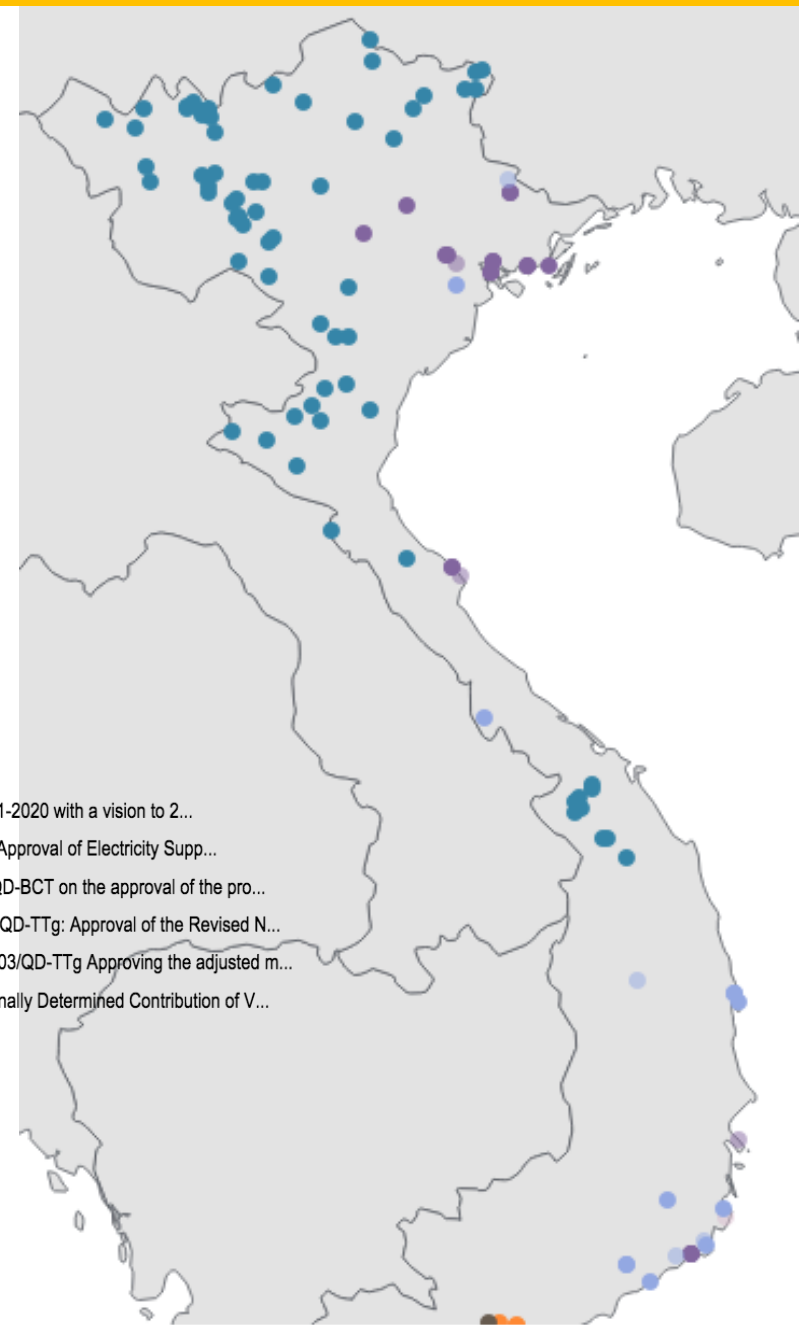
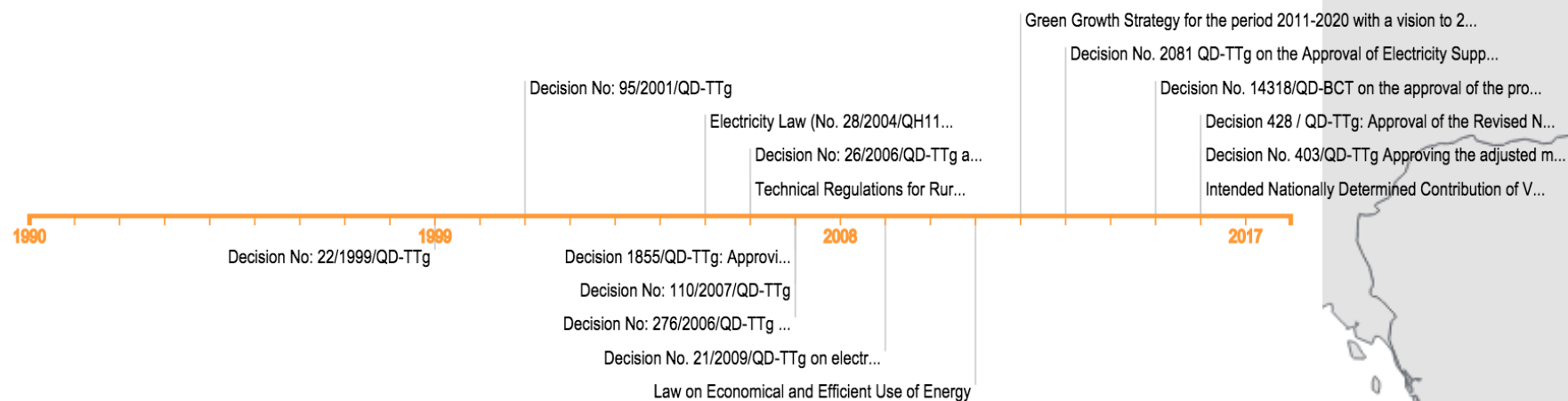
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CASE: ENERGY ACCESS POLICY DEVELOPMENT IN VIET NAM

Percentage Population with Access to Electricity in Viet Nam, 1990-2015

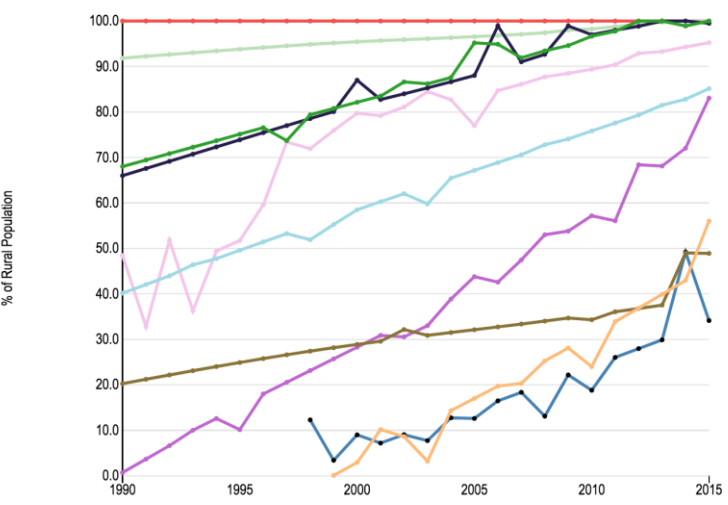


Policies Supporting Access in Viet Nam, 1990-2018



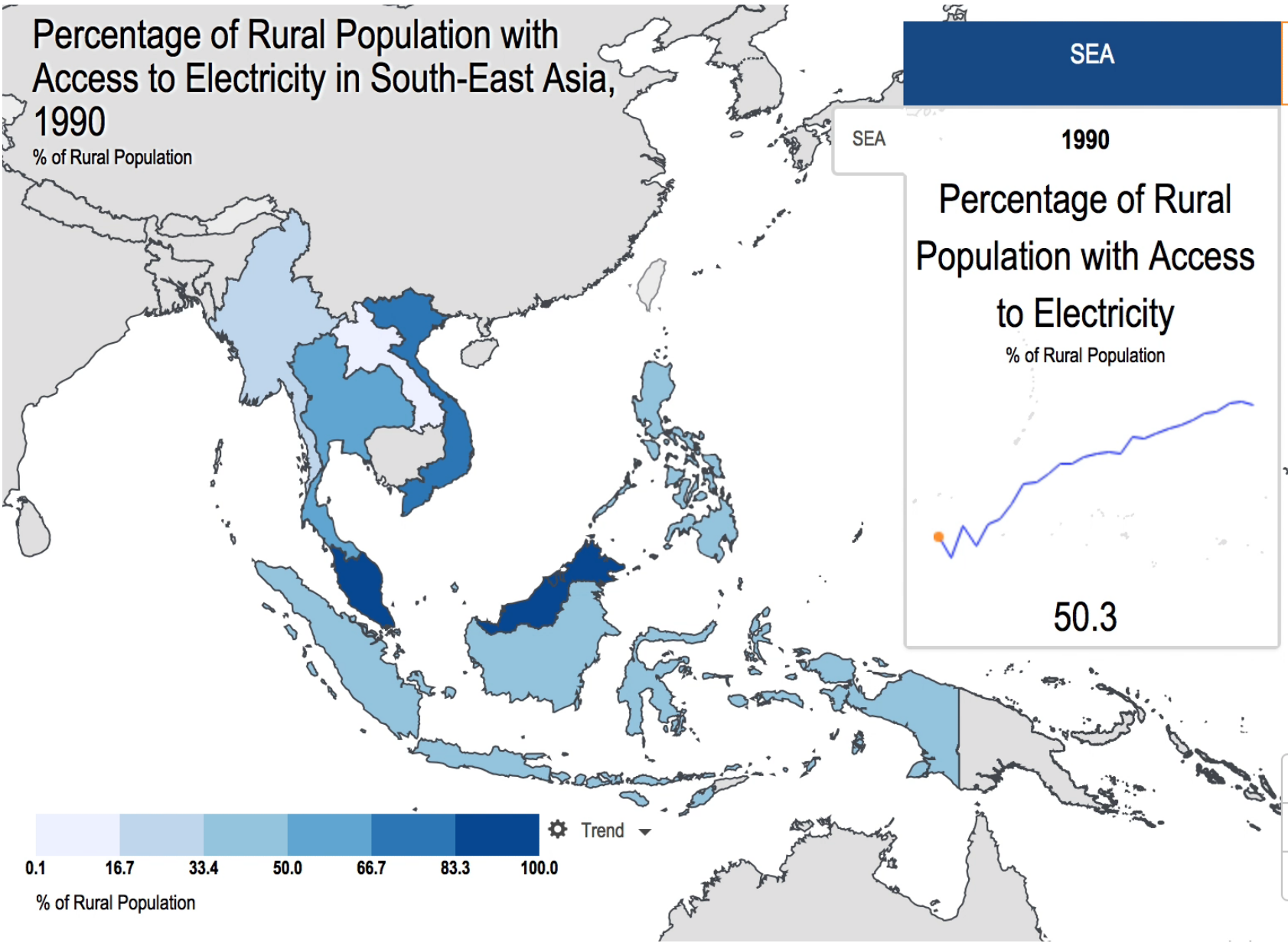
CASE: ELECTRICITY ACCESS IN SOUTH-EAST ASIA

Percentage of Rural Population with Access to Electricity, 1990-2015



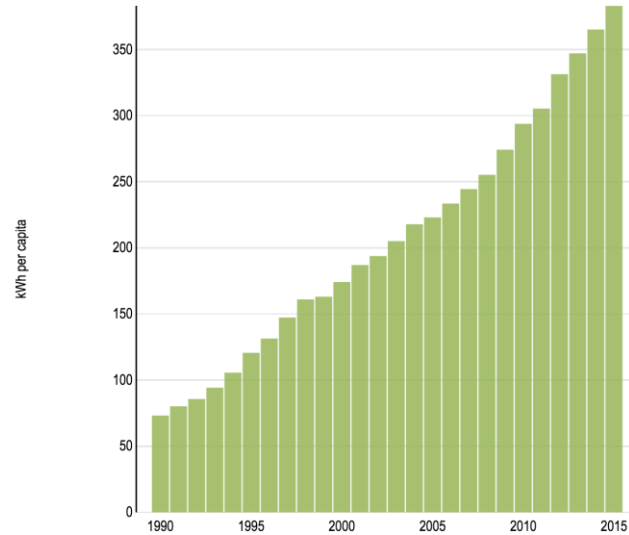
Source: World Bank
Chart generated from Asia Pacific Energy Portal (asiapacificenergy.org)

- Brunei Darussalam
- Cambodia
- Indonesia
- Lao People's Democratic Republic
- Malaysia
- Myanmar
- Philippines
- Thailand
- Timor-Leste
- Viet Nam



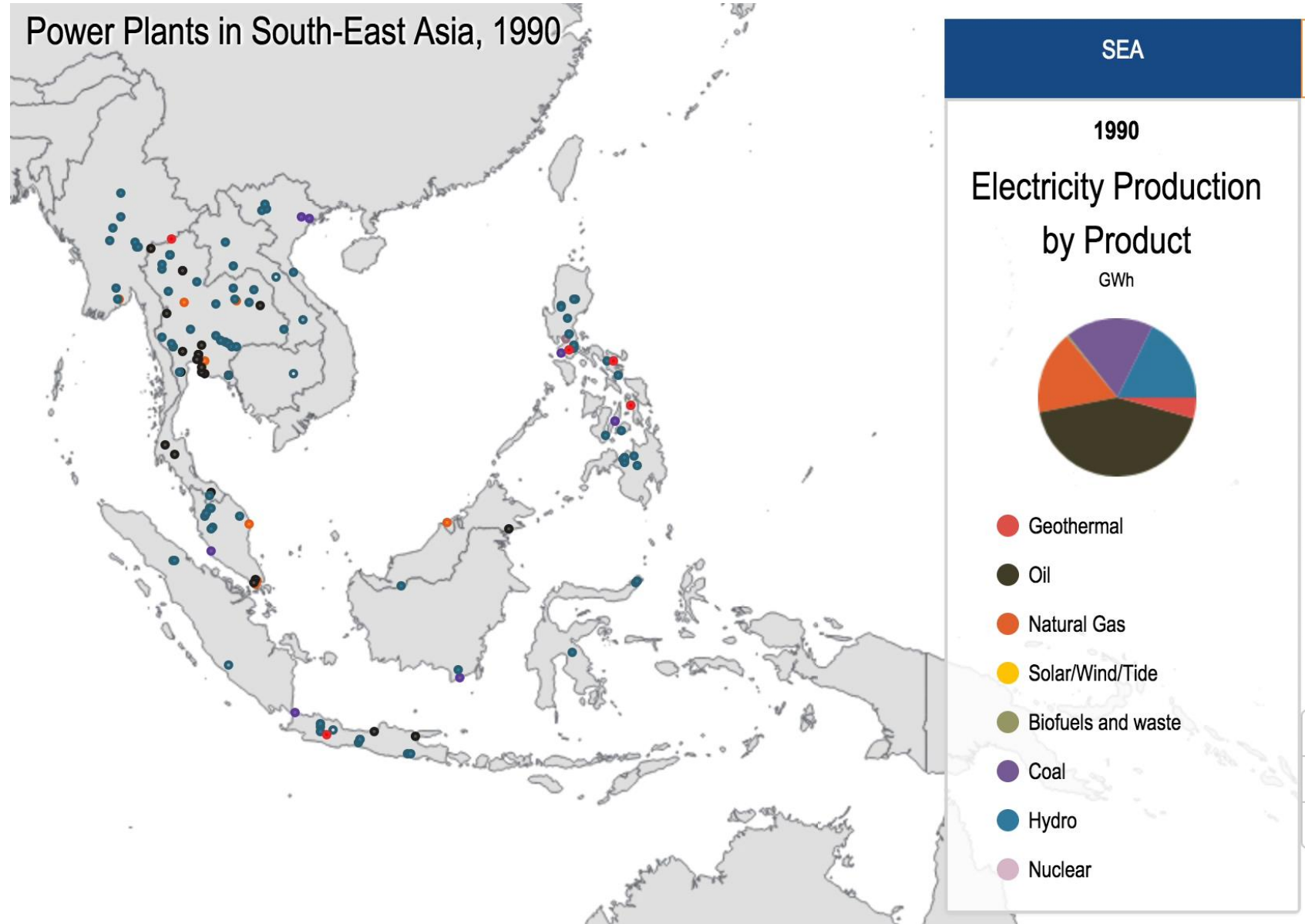
CASE: ELECTRICITY PRODUCTION AND USE IN SOUTH-EAST ASIA

Household Electricity Consumption Per Capita in South-East Asia, 1990-2015



Source: ESCAP based on data from the International Energy Agency (IEA) and World Population Prospects (WPP)
Chart generated from Asia Pacific Energy Portal (asiapacificenergy.org)

Power Plants in South-East Asia, 1990



CASE: TRADE FLOW DATA – complex data made accessible

Japan Energy Imports, 2011

