

**Country Assessment Report**

**Country/Region Name- Taiwan:**

Taiwan is an island situated in East Asia off the coast of China. It has a population over 23 million and GDP of 589.91, with a growth rate of 2.1%.

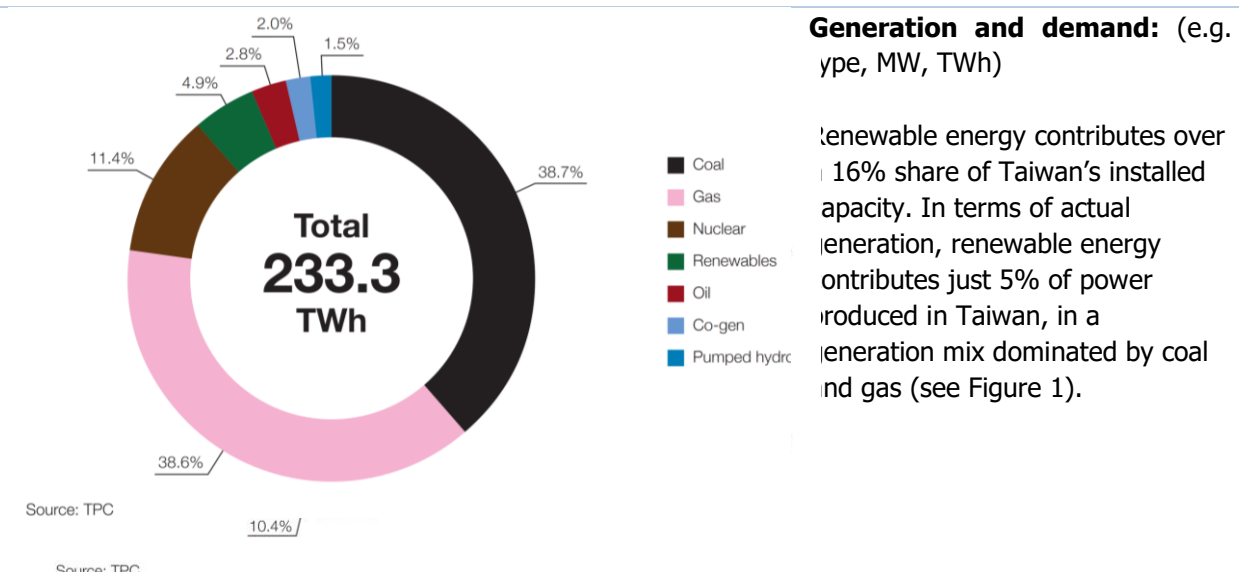
(Santander 2020)

**Economic structure and activity:**

Taiwan has a free-market economy, which experienced a period of rapid growth and industrialisation in the 1960s amongst other Asian Tiger economies. The service sector accounts for 63.5% of GDP, spearheaded by financial, utility services and telecommunications. Industry contributes 35.4% to GDP and is dominated by iron and steel production, chemicals, and machinery manufacturing. The country is one of the largest producers of semiconductors, computers, and mobile phones. The agriculture sector accounts for just 1.6% of GDP given the island’s small land size. The nation’s main crops are rice, sugar cane, fruits, and vegetables.

(Statista 2018; Santander 2020)

**Top private companies with RE commitments:**



**Generation and demand: (e.g. type, MW, TWh)**

Renewable energy contributes over 16% share of Taiwan’s installed capacity. In terms of actual generation, renewable energy contributes just 5% of power produced in Taiwan, in a generation mix dominated by coal and gas (see Figure 1).

**Figure 1.** Installed power capacity per technology (Wartsila 2019).

**Figure 2.** Generated mix per technology for the year 2018 (Wartsila 2019).

Peak power demand in 2016 was 35.86 GW. Taiwan’s installed capacity suffers from an incongruent supply and demand mix. For example, the demand for electricity in the north of Taiwan exceeds local generation.

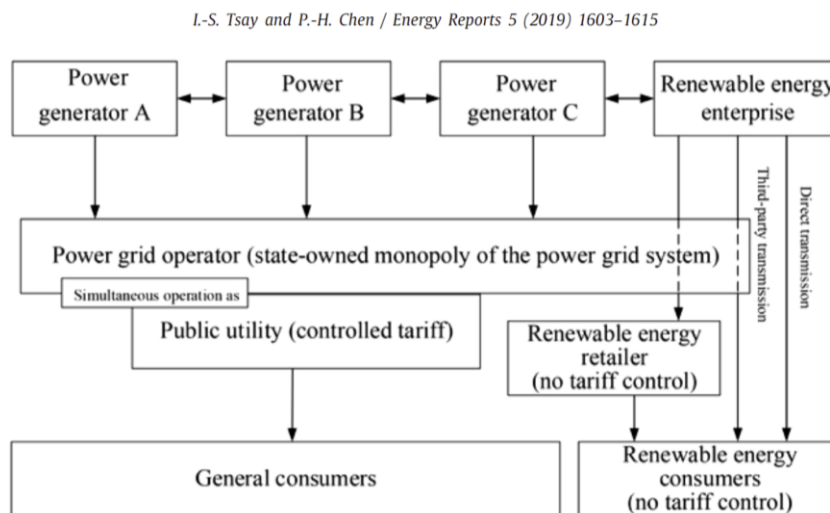
(Bureau of Energy Taiwan 2017)

**Electrical Interconnection and import/export:**

As an island with political tensions between itself and neighbouring PRC (People's Republic of China), Taiwan currently has no electrical interconnection. Its power generation though is heavily dependent on energy imports.

**Market Structure:**

Figure 3 details the most recent market structure of Taiwan's power sector under the recent amendment to the nation's electricity act. The industry has been liberalised since 1995.



**Figure 3.** Market structure of Taiwan's power sector (Tsay and Chen 2019).

**Responsible Government Department:** (include key contacts)

Bureau of Energy, Ministry of Economic Affairs is the main government entity overseeing the power sector and is responsible for the formulation of policy and law.

**Existing/Planned Energy Legislation:** (is there a CPO)

*Amendment of Electricity Act*- passed in 2017 to introduce competition in the generation market, enhance operation efficiency, technology innovation, and service quality. It also introduced competition in the retail market, to enable customers freedom of choice.

(ICAP 2020)

**Environmental Legislation for RE:**

*Greenhouse Gases Reduction and Management Act* - passed in 2015 to legislate a 50% reduction in carbon emissions by 2050. It has set regulatory goals on a rolling 5-year basis which are coordinated by TEPA (Taiwanese Environmental Protection Administration).

(ICAP 2020)

**Existing/Planned Certificate Systems:** (purpose, extent)

I-REC is active.

**RE market potential:**

Taiwan is enriched with abundant solar energy reserves. Its geographical positioning gifts the nation with long and intense insolation, as well as a small angle of daylight deflection. Restricted by land size, PV deployment is likely to entail a mix of integrated urban farms and offshore developments. Google has begun construction on a floating solar farm upon Taiwan's fishing ponds worth 10MW (CNBC 2019). Wind energy has significant potential with a technical potential of 4GW on land and 73.5 GW offshore.

(Lu 2016)

**Market risks and challenges:**

**Extent of Engagement with Government:** (brief summary of any contact already made with the national government regarding certification in general and I-REC)

**Expected response from Government:**

**Current Environmental Reporting in Energy:**

**Any other Relevant Information:**

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Preparation Date	

**Code Manager Observation**

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