



### **Innovative Partnership for the 21'st Century on Energy**

Indonesia has an ambitious agenda within the energy sector, including targets of 23% renewable energy in 2025, 100% electrification rate of the country in 2025 and increased energy efficiency, with energy savings equal to 17% in 2025. Furthermore, Indonesia's commitment to the Paris Agreement includes an overall unconditional target of 29% reduction in green house gas emission by 2030 and 41% GHG reduction if international support is provided.

In 2016 Denmark and Indonesia launched phase I of an ambitious Government-to-Government (G2G) Energy Cooperation, covering a three-year period. Thus, 2018 marked the end of the first phase. It has been well received and has strengthened the cooperation between Denmark and Indonesia. This Strategic Sector Cooperation (SSC) has operated mainly within three core-areas: 1) Energy Modelling, 2) Integration of Renewable Energy (RE) and 3) Energy Efficiency (EE) to support ongoing and new policies.

The SSC has been extended into a second phase, also covering a three-year period (2019-2021). The scope of phase II corresponds with those of phase I.

### **Key activities in 2018**

The detailed annual work programme has specified the activities and the outputs for each cooperation area. There has been a number of workshops within energy modelling, RE and EE in order to share and transfer experiences based on the Indonesian partners' demand. Two Steering Committee Meetings were held in February and October to review progress and forthcoming activities. The Indonesian Partners praised the SSC at both Meetings and expressed a broad wish for the cooperation to continue by acknowledging the benefits of Danish support in all three core-areas.

During 2018, a number of study-tours and high-level missions to Denmark were organised within all three

core-areas. These allowed the Indonesian Partners to get a first-hand impression of the Danish approach and experiences related to the clean energy transition. A visit to Samsø Energy Academy stressed how local engagement and participation can transition an island to be self-reliant using local RE resources for energy purposes. At industry scale the visit included wind turbine manufacturers' facilities. In relation to modelling and energy planning, the SSC has had activities on both national and regional level, providing solutions and support especially by promoting the modelling tool Balmorel. The SSC has used social media to communicate about ongoing activities and results of the cooperation.

### **Main achievements and lessons learned in 2018**

The Minister for Energy and Mineral Resources (MEMR), Mr. Ignasius Jonan, participated in the Clean Energy Ministerial (CEM9) in Denmark. The minister met with the Danish Prime Minister and through bilateral meetings with the Danish Minister of Energy, Utilities and Climate, Mr. Lars Chr. Lilleholt, an addendum to the Memorandum of Understanding was signed stipulating the continuation of the SSC (phase II). Additionally, site visits to Energinet and Lindø Offshore Renewables Center highlighted the green transition in Denmark. Subsequently, phase II of the SSC was formally developed in collaboration with MEMR, the National Energy Council and the government-owned energy company PLN.

In 2018, the SSC engaged in modelling and energy planning on a regional level. A key feature was the development of "Lombok Energy Outlook 2030" and a Pre-Feasibility Studies for RE for Lombok". The activities on Lombok have been well received and are set to be the basis for the future cooperation by using Lombok as a pilot area. This area is also the scope of a new joint SSC component called "Sustainable Islands in Indonesia (SII)" in which the SSC on Environment and Energy are working together. This new component will also include a strong B2B focus.

Another notable activity in 2018 was the finalisation of the study on EE in selected power plants, which showed that all of the power plants were operating close to design values, but only at approx. 32% efficiency. This is remarkably low, compared to Danish power plants operating at around 45% efficiency. The EE and flexibility of the power plants will be one of the subjects of the future activities of phase II of the SSC. The Minister for National Development Planning also visited Denmark and had a full day of meetings and site visits focussed on energy.

**Status:** Full SSC Project under implementation. Phase II 2019-2021

**Partners:** Ministry of Energy and Mineral Resources and the National Energy Council.

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