

7th International Skills Forum Anticipating and Preparing for Emerging Skills and Jobs



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### An Indonesian Solution to Skills Training for the Renewable Energy Sector

Manila, 14 December 2017 Mae Chu Chang Nathan Hart

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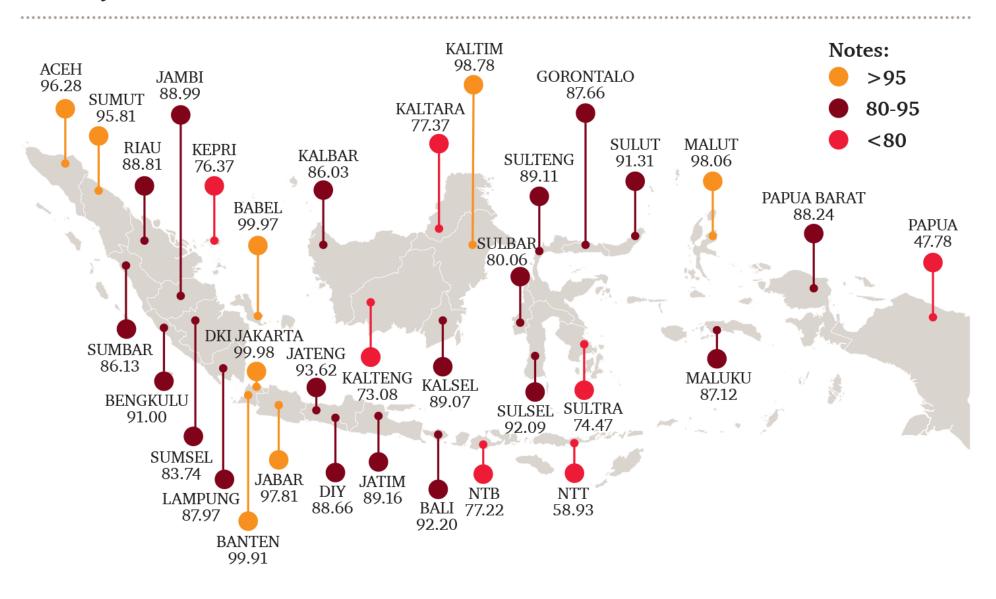
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# Indonesia's energy snapshot: growing to meet demand but still short of universal access

- Largest energy user in ASEAN
- Electricity consumption will triple by 2030
- More than 10% of the country still lacks access (30 million people)
- Abundant renewable energy resources
- Ambitious renewable energy targets (23% by 2025, currently 11%)

Data: IRENA, 2017

#### **Electrification Rates in Indonesian Provinces (2016)**



### **Distributed Renewable Energy:**

A solution, but with skills shortages

- Mini and off-grid renewable energy offers solution for
- Local labour is recruited to operate & maintain, but not given trained
- Lack of expertise has led to a pattern of operational problems and system failures
- Estimated 1.3 million jobs in renewables by 2030



#### **Indonesian Power Industry Survey 2017**

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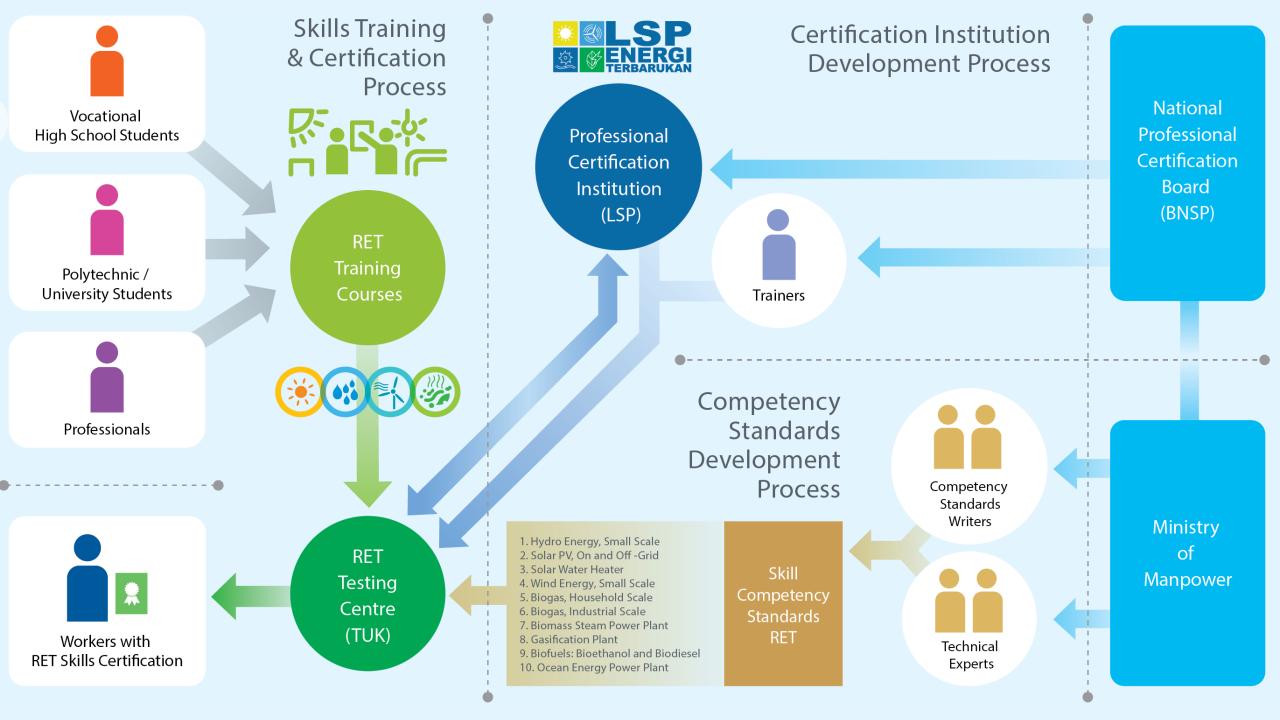
Figure 6. Which of the following key challenges have a high priority in your business operations today?

Key Challenges	% of respondents who scored high or very high
Funding (Generation, T&D)	67%
Adequate tariff levels	67%
Skills development	57%
Commission of new capital projects (Generation, T&D)	50%
Maintenance of capacities	47%
Rural electrification	33%
Loss reduction (T&D)	10%



- A national certification system for operators and technicians of small-scale renewables
- Leverages vocational high schools in remote areas for training and testing
- Partnerships with industries for on-site certification testing
- Developed in coordination with Ministries of Education and Energy







### Next Steps for Asia Pacific

- Regional alignment of skills competency standards
- Identify countries with similar enabling environment
  - potential for distributed RE (islands)
  - vocational schools  $\leftarrow \rightarrow$  RE industry



**Sinergi** is actively seeking collaborations across Asia!

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## **Training for Indonesia's Future**

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