



8<sup>th</sup> International Smart Grid Expo  
World Smart Energy Week 2018, Tokyo

Booth E8-26

## THE CURRENT AND FUTURE MICRO GRID DEVELOPMENTS IN TAIWAN

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### Outline



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- Micro grid projects in Taiwan
- Technologies and integrations
- Serving the markets in need
- Partnerships in exploration

# Micro Grid Projects in Taiwan

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Picture Reference: [https://commons.wikimedia.org/wiki/File:Taiwan\\_ROC\\_political\\_divisions\\_labeled.svg](https://commons.wikimedia.org/wiki/File:Taiwan_ROC_political_divisions_labeled.svg)  
[https://commons.wikimedia.org/wiki/Category:Maps\\_of\\_the\\_South\\_China\\_Sea#/media/File:Relief\\_Map\\_of\\_South\\_China\\_Sea.png](https://commons.wikimedia.org/wiki/Category:Maps_of_the_South_China_Sea#/media/File:Relief_Map_of_South_China_Sea.png)

# Linbian Project, at Pintung County, in the Southern Taiwan

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Basics : ESS 159kWh · PV 78kWp · Wind 10kW · EMS · and Bio diesel for backup  
 Feature : 100% penetration of renewable energy  
**Silver Medal of 2015 APEC ESCI Energy Smart Communities Initiative**



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Picture reference: 林仔邊自然文史保育協會 <http://317nb.net/>

# Tai ping Island, 1,592KM from Taiwan

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Basics : ESS 612kWh · PV 40+120 kWp · EMS/SCADA · and Genset for backup  
 Feature : Significantly reduce diesel consumption for 50kL/yr, and logistics cost (7 days round trip from Taiwan)



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Picture reference: Cost Guard Administration, Executive Yuan  
<https://tw.appledaily.com/new/realtime/20160126/785800/8>, <http://www.thinkingtaiwan.com/content/5140>

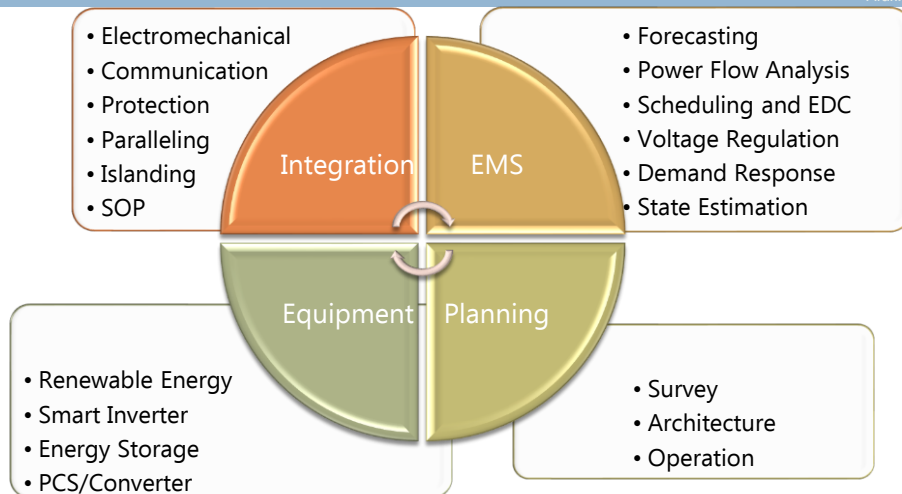
# Technologies

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# Institute of Nuclear Energy Research Microgrid



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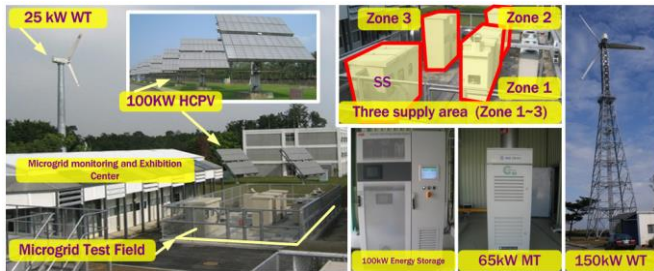
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The establishment of an autonomously-controlled microgrid demonstration system, and completion of seamless, stable switching of microgrid between grid-connected and islanding operating modes.

INER are developing Microgrid & EV Integration Technology



1. Reduce EV charging grid connection impact;
2. Improve the renewable energy usage efficiency
3. Vehicle to Grid (V2G) for Load Shifting



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Picture reference: Taiwan Institute of Economic Research

# Myanmar Projects

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- Tha-Yet-Pin and Pe-Taw-Gon, rural areas near Naypyidaw; No power infrastructures before.
- 10 kW solar PV system & 6 kW pumping system; Container-type turn-key design.
- Providing drinking and irrigation water.



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# City Micro Grids

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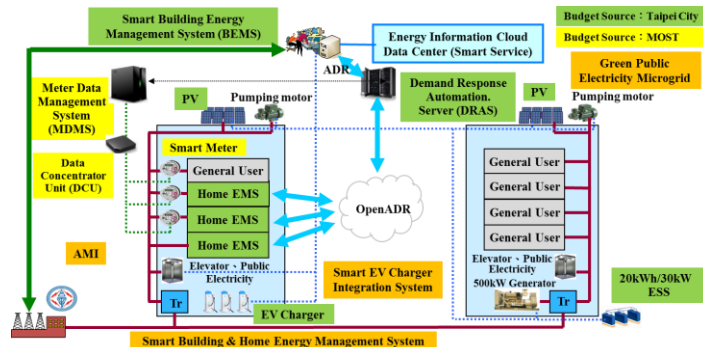
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1. **Smart BEMS** – A system integrates all the HEMS, and public facilities monitoring and control systems in the building, and utilize **demand response (DR)** program to best manage/reduce the energy consumption.
2. **Green Electricity** – Install & integrate photovoltaic (PV) system and Energy Storage System (ESS) in resident or commercial buildings.
3. **Smart EV Charging & Management System Integrated**
4. **Advanced Metering Infrastructure (AMI)**



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Source: Department of Urban Development, Taipei City Government, NCKU, TIER and TaiPower, The Suggestions for Smart Grid Promotion in Taipei City - Xing Long Public Housing, Oct. 2015

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# Partnerships for More

- Tatung is a **smart energy company**
- Our offering
  - a wide portfolio of **systems** in the power industry
  - technical **solutions** paving the future of energy
  - professional **services** that adhere to customer needs
- We're looking for partnerships
  - **Business** partners, particular in ASEAN markets
  - **Technology** partners, for ESS, EMS/SCADA, ...

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## See You at Our Booth



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### E8-26

Transformers,  
Substations,  
Motors, Cables,  
Smart Meter, AMI,  
Solar PV, EPC,  
Micro Grid,  
Project O&M,  
etc.



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