

工業技術研究院

Industrial Technology
Research Institute

Advanced Metering Infrastructure in Taiwan

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Industrial Technology Research Institute**

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About ITRI

ITRI, Industrial Technology Research Institute

7200 employees, revenue ~ 650 million US\$

Business Development Unit

Core Laboratories

Focus Centers

Linkage Centers

Electronics and Optoelectronics

Information and Communication

Mechanical and Systems

Material and Chemical

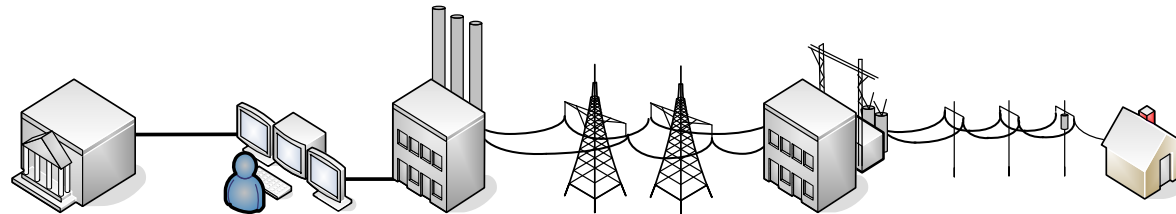
Green Energy and Environment, GEL

950 employees, revenue ~ 90 million US\$

Biomedical Technology and Device

GEL's Focus

Power Management Generation Transmission Dispatching Utilization



Micro-grid & R.E. Integration



Advanced Metering Infrastructure

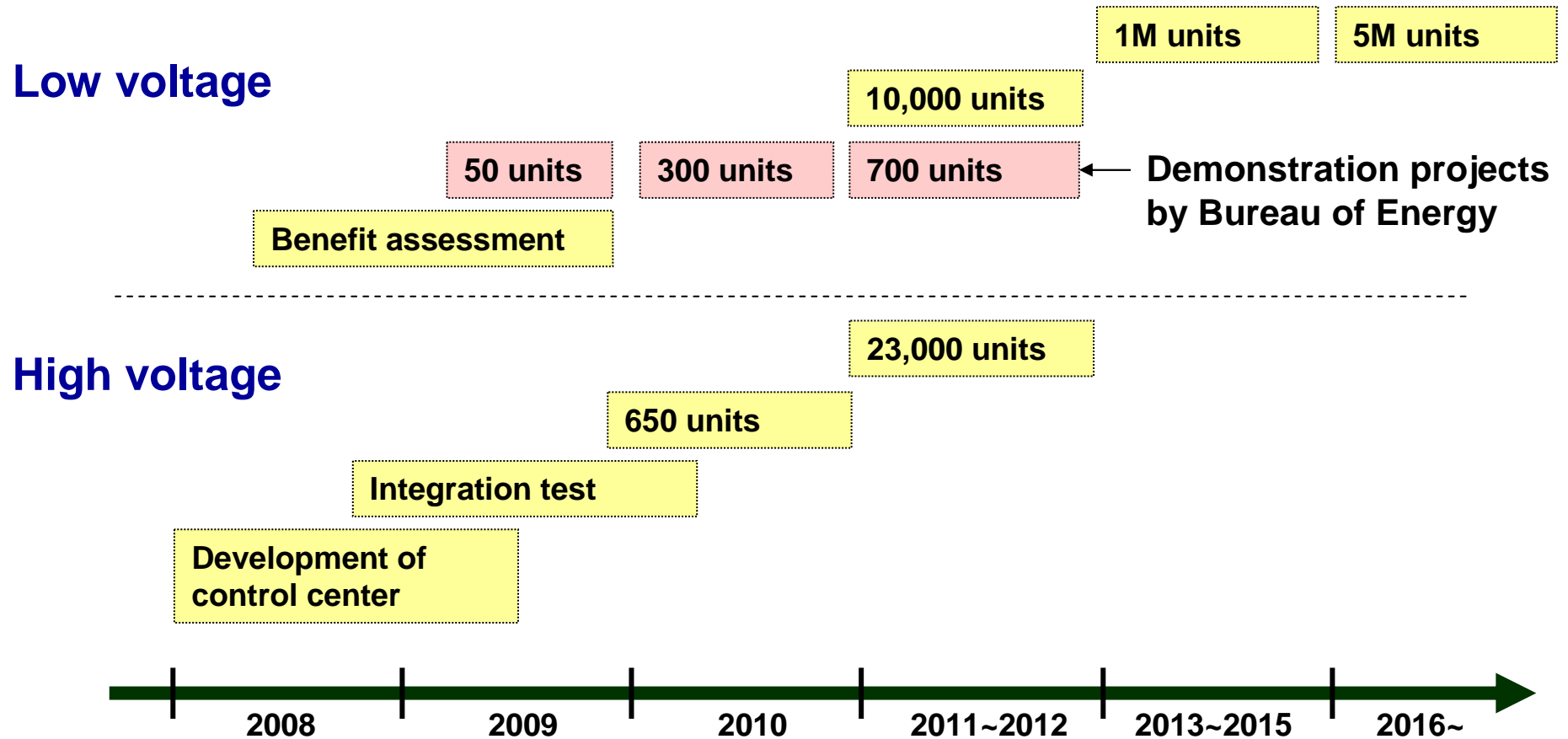
- PV inverter
- Forecasting of PV generation
- EV charging infrastructure
- Bio fuel
- Hydrogen fuel cell
- Smart meter
- Concentrator
- Networking



End-user Energy Management

- Smart sensors/ Smart sockets
- Energy interface for smart appliances
- Energy management system

Schedule for Taiwan's AMI



Demonstration Project

■ Scale

- **2009: 50 meters**
- **2010: 300 meters**
- **2011: 400 meters with few IHDs**

■ Purpose

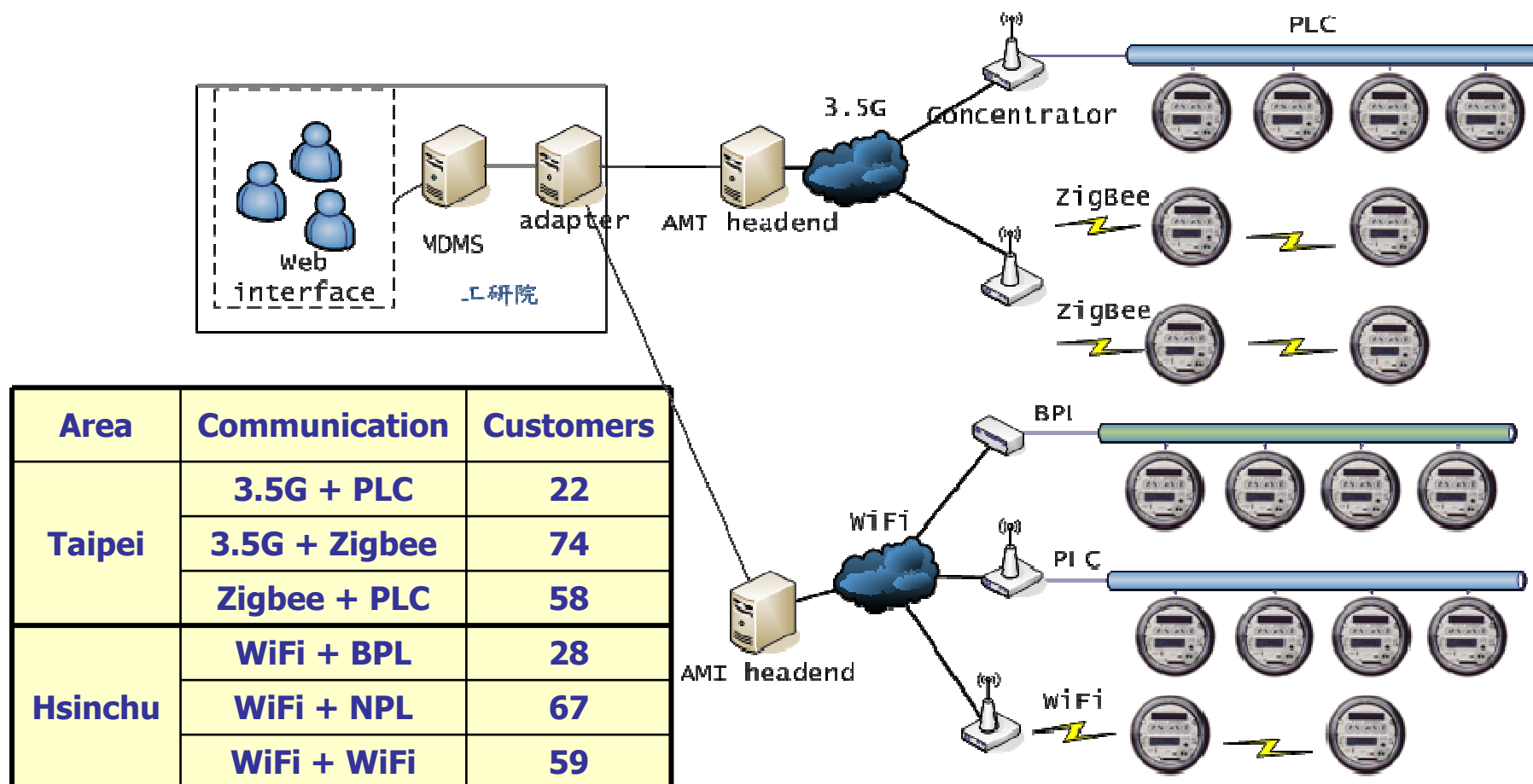
- **Technology evaluation**
- **Cost effectiveness estimation**

■ Project Team

- **ITRI, III, Archmeter, eMeter, Tatung, Delta Electronics, Works Systems, etc.**

System Architecture

- Number of meters : 308
- Types of buildings : villa, apartment house...



Web Service

Log Out | Help

Dashboard My Energy Profile

2 new Alerts: Usage Spike(2) Settings

Your daily usage spiked on DEC 27, 2010 View Graph

Your daily usage spiked on DEC 22, 2010 View Graph

Alert History Minimize this

歡迎您來訪:
First Name4 Last ...
Account #: 5000004

Website updated through:
2011-01-04 00:00
Edit Profile

我的用电量
kWh
Total 13 kWh
9
6
3
1月01 1月02 1月03
細節

環境衝擊
多少磅的垃圾
6
Use the arrows to see more
這一期的總量相當於這麽多的垃圾處理?的排放量
細節

我的平均使用
1.2 kWh
Your Average Use is Up 21%
1.5 kWh
Historical Daily Average Current Daily Average
細節

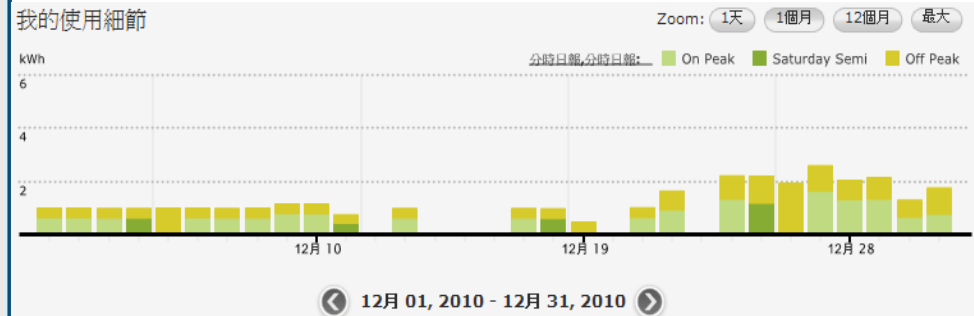
Feedback

Cut Energy Costs
擺脫你的備用冰箱
您可以節省金錢和精力，如果您拔插或回收在你的車庫不需要的備用冰箱。
More Ways to Cut Costs

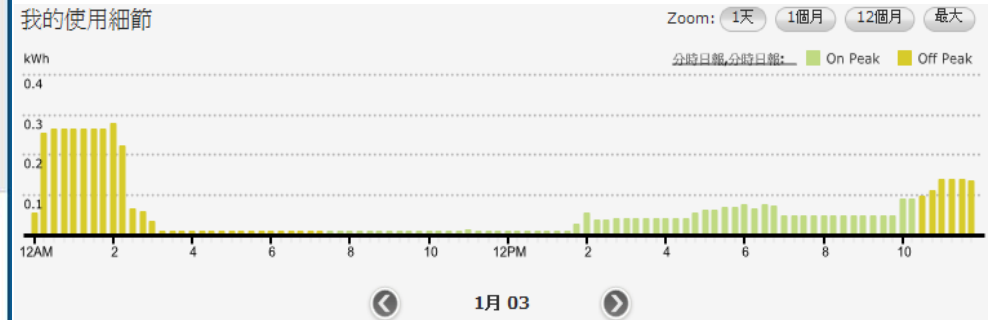
Be Energy Efficient
管理您的能源使用
安裝一個可編程的自動調溫器，以維持您的家有個舒適的溫度及在冬季和夏季管理使用情況
More Ways to Use Less

Reduce Your Impact
利用生態友好的，碳中和產品
無論在哪裡，購買那些能盡量減少二氧化碳排放量公司的產品，並且這些公司在製造跟運送產品過程中是可以抵消剩餘的排放量
More Ways to Go Green

我的使用細節



我的使用細節



Summary

- **Smart Grid Master Plan for Taiwan will soon be released**
- **Taipower will start the deployment of 10,000 meters by then end of 2011**
- **Bureau of Energy supports both AMI demonstration and research projects**
- **Electronic and ICT companies in Taiwan are establishing capabilities of AMI system design and deployment**