



**ASIA PACIFIC ECONOMIC COOPERATION (APEC)
NEW AND RENEWABLE ENERGY TECHNOLOGIES EXPERT GROUP (EGNRET) 41ST MEETING**

Overview of Renewable Energy in China
中国可再生能源发展概况

Mr. WAN Lin
Beijing, October 15, 2013

Content



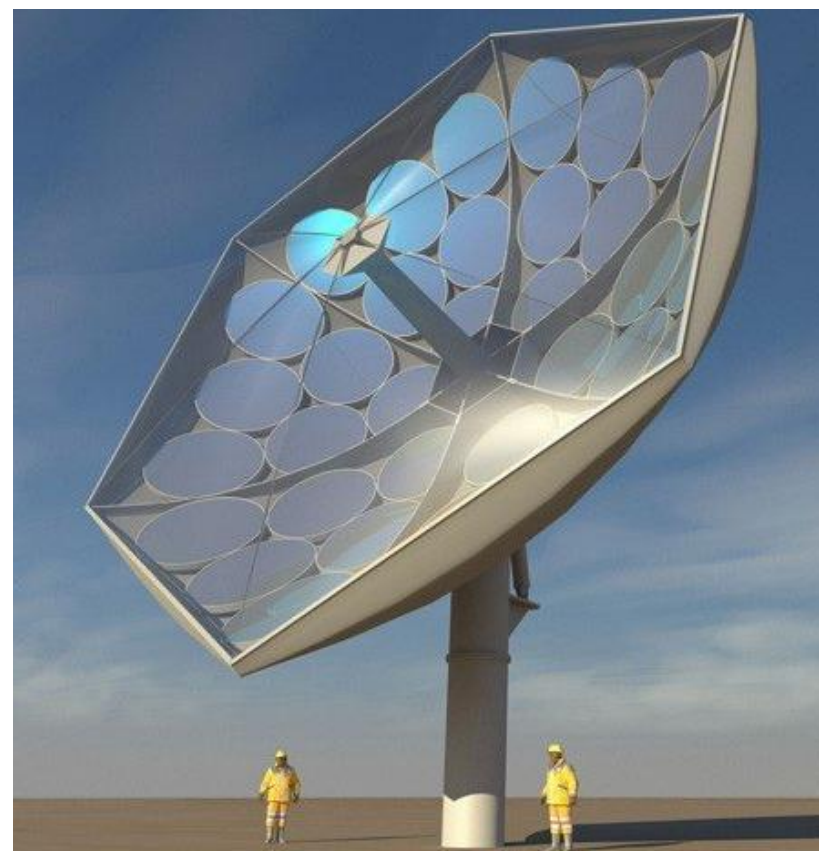
1. Three Waves of RE in China
2. Cooperation Proposal



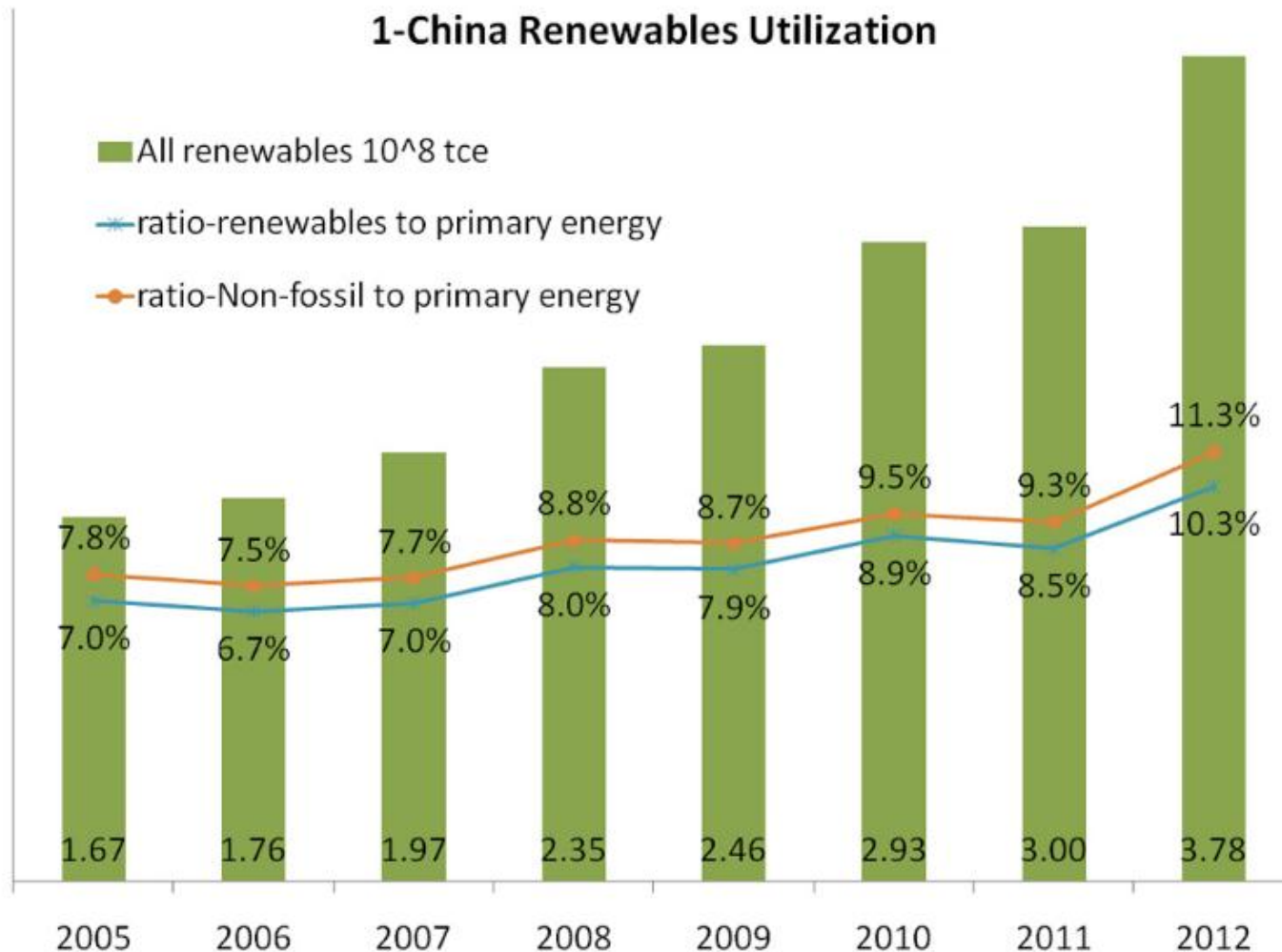
1. Three Waves of RE in China



- **First Wave: Manufacturing**
 - Pushed by: global fiscal subsidy and support
 - Large Scale, Lower Cost, Fast Speed
- **Second Wave: RE Power Plant**
 - Pushed by: grid parity
 - Cheap, Clean, Convenient
- **Third Wave: Securitization**
 - Pushed by: market & capital
 - Long-term stable cash flow, Liquidity, Transparent



China RE Utilization

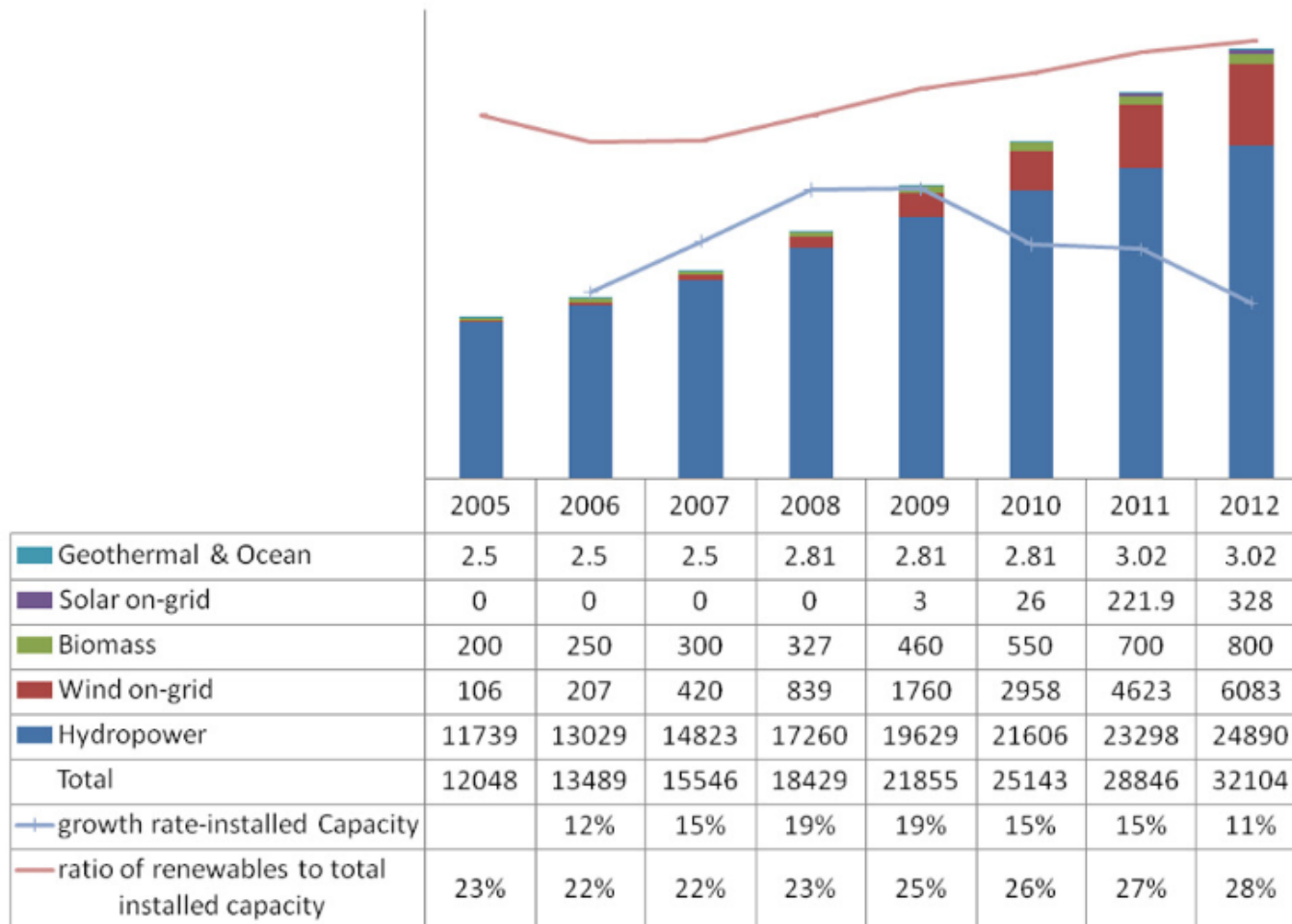


(from CNREC website: <http://www.cnrec.org.cn/cbw/zh/2013-03-02-370.html>)

China RE Installed Capacity



2-China Renewables installed Capacity 10^7 Watt

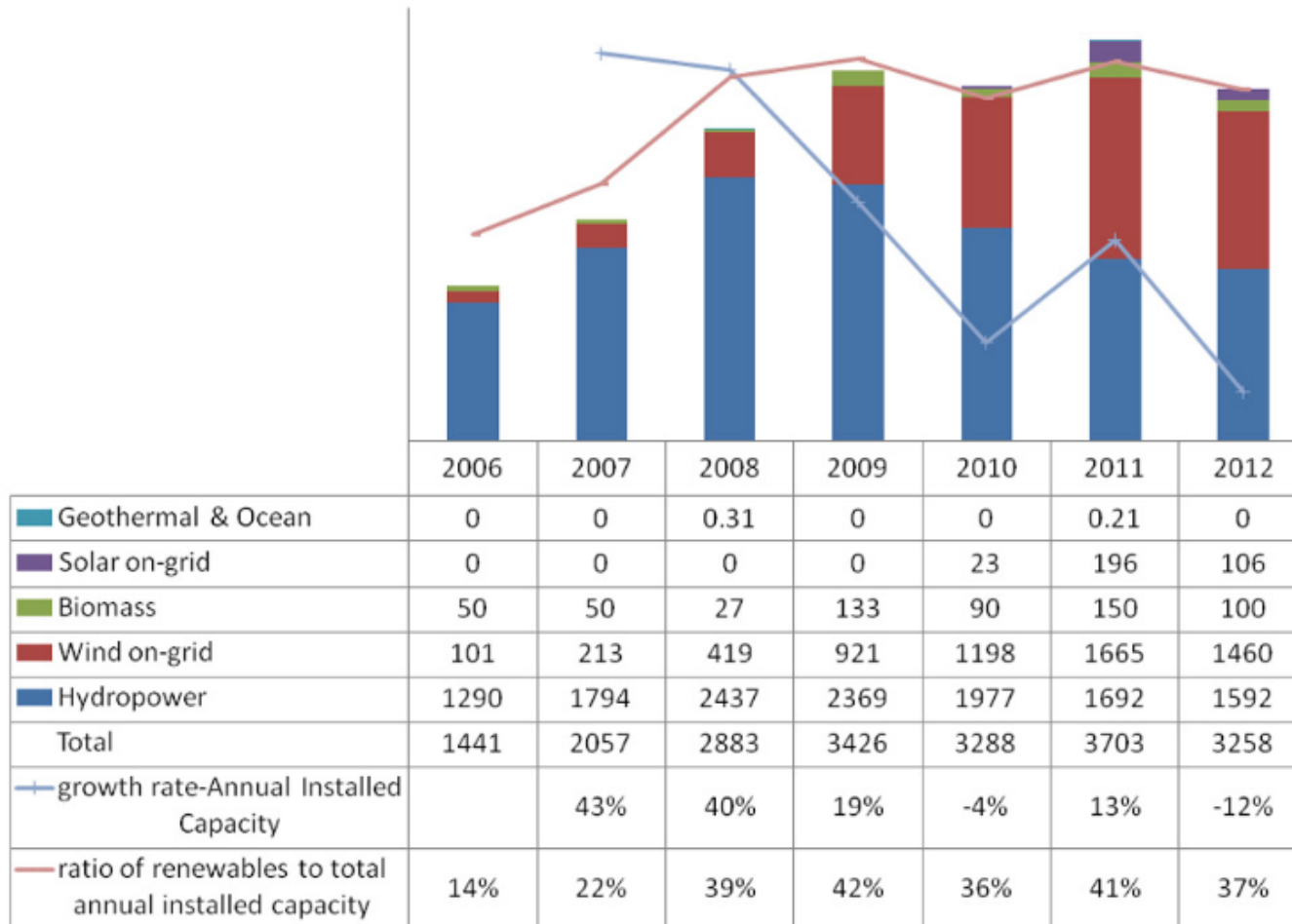


(from CNREC website: <http://www.cnrec.org.cn/cbw/zh/2013-03-02-370.html>)

China RE Annual Installed Capacity



3-China Renewables Annual Installed Capacity 10⁷ Watt

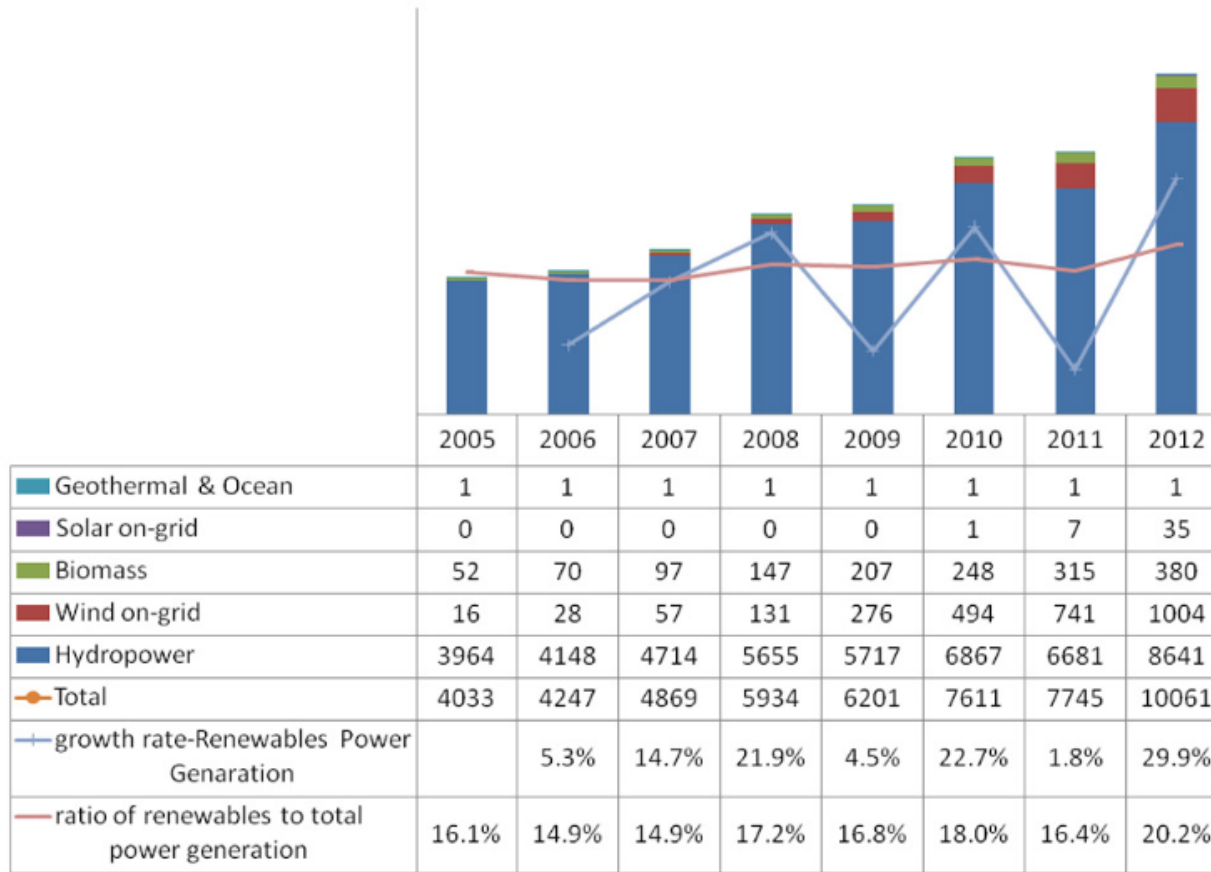


(from CNREC website: <http://www.cnrec.org.cn/cbw/zh/2013-03-02-370.html>)

China RE Power Generation



4-China Renewables Power Generation 10¹¹ Watthour



(from CNREC website: <http://www.cnrec.org.cn/cbw/zh/2013-03-02-370.html>)

Opportunity & Challenge in China



- Opportunity
 - Resources
 - Laboratory
 - Market
- Challenge
 - Mature Solution / Industry
 - Business Model
 - Environment & Social



Possible Risk & Casualty (PV)



APEC China Year



- 2014 APEC China Year
- APEC Project Meeting
- EWG Meeting
- Energy Ministerial Meeting
- Leaders' Summit



Low-carbon Model Town (LCMT) Development Model and Tool Kit

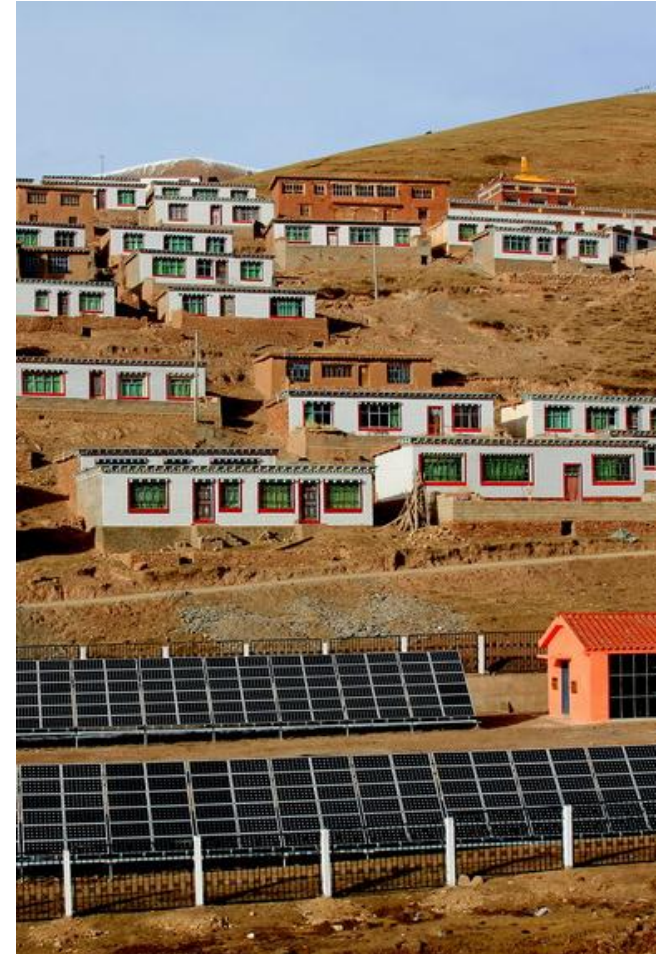


- Kick-off Meeting in Beijing
- Session 1: Low Carbon Model Town (LCMT) Development Model and Tool Kit
- Session 2: Low Carbon Model Town (LCMT) Pilot Project Case Study
- Session 3: Panel Discussion
- Session 4: Onsite Investigation to LCMT Project

2. Cooperation Proposal



1. Mature Solution and Technology
2. Project Pool
3. Fund & Financing Model



2.1 Mature Solution and Technology



- APEC PV Power Plant Design Evaluation Study (PVDE)
- APEC Solar Photovoltaic System Performance Ratio Evaluation Study (PVPR)
- APEC Photovoltaic System Latest Development Comparative Study (PV-LDCS)



2.2 Project Pool



- Cooperation with Banks
- International Project Pool
- Mature Solution / Industry
 - PV
 - Biomass
 - Smart Grid
 - Heating



2.3 Fund & Financing Model



- Increase Credibility & Transparency
- Innovation of financing model & business model
- Pension Fund: Long term, stable investment
- APEC ??? Bank



Thank you for your precious time



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- Mr. WAN Lin graduated from Renmin University of China in 1994, majored in Industrial Economics and International Economics.
- He joined China Classification Society, CCS in 1994, having worked as strategy researcher, production inspector, project manager, cooperation department manager, assistant to Chairman of International Association of Classification Society (IACS). He was appointed as the general manager of China Classification Society London branch in 2003.
- In 2005, he acquired the Master degree in MSc Shipping, Trade and Finance at CASS business school, City University, London. He went to the US for Tri-State (New York, New Jersey, Connecticut) Maritime Cluster Research sponsored by the Baltic Exchange scholarship in 2005.
- He joined China General Certification Centre (CGC) as vice president in 2008, in charge of PV, solar thermal business, as well as Strategy & International Cooperation.
- He is APEC EGNRET member, CCAA Senior Auditor, member of China's national PV standard committee and IEC, and main contact window in renewable energy cooperation between China and US, EU, AFRICA, APEC, BRICS, Mainland and Taiwan, as well as Co-Chairman of WG Standard, Testing & Certification in China-US RE cooperation, and steering committee member of PV Quality Assurance Forum.