International Energy Agency
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CHP/DHC Strategic Workshop
Country Scorecards

Paris, 27-28 May 2014

www.iea.org

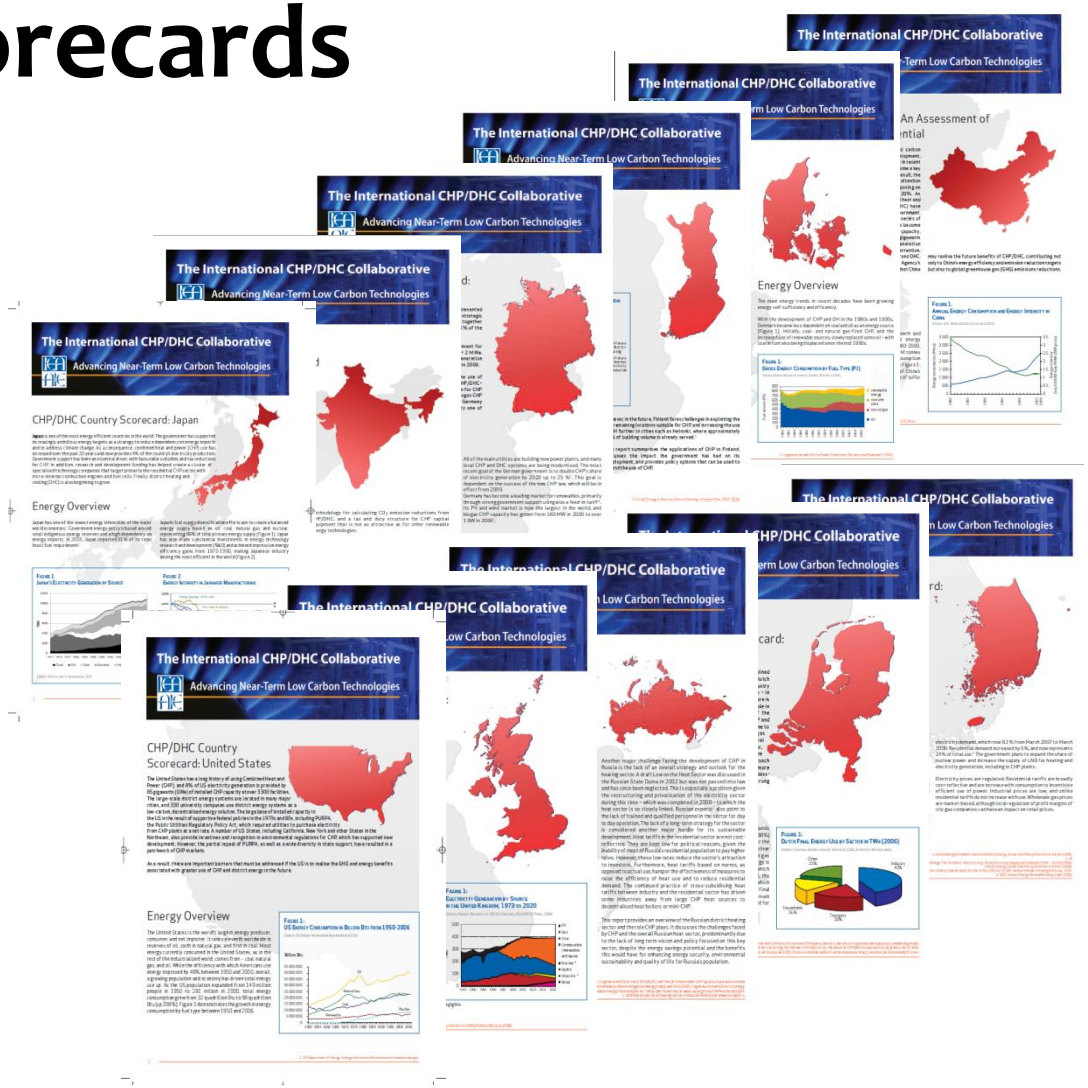
CHP/DHC Country Scorecards series

Each country scorecard aims to:

- ✓ Provide additional data on CHP and DHC at the country level
  - ✓ CHP average performance, CHP capacity breakdown by size and technology, DHC energy supply mix
- ✓ Discuss current status of CHP/DHC in national context
- ✓ Outline policy efforts and identify strengths and weaknesses
- ✓ Evaluate potential for additional deployment
- ✓ Identify country-specific challenges to CHP and DHC
- ✓ Recommend solutions to help overcome barriers in market and policy frameworks

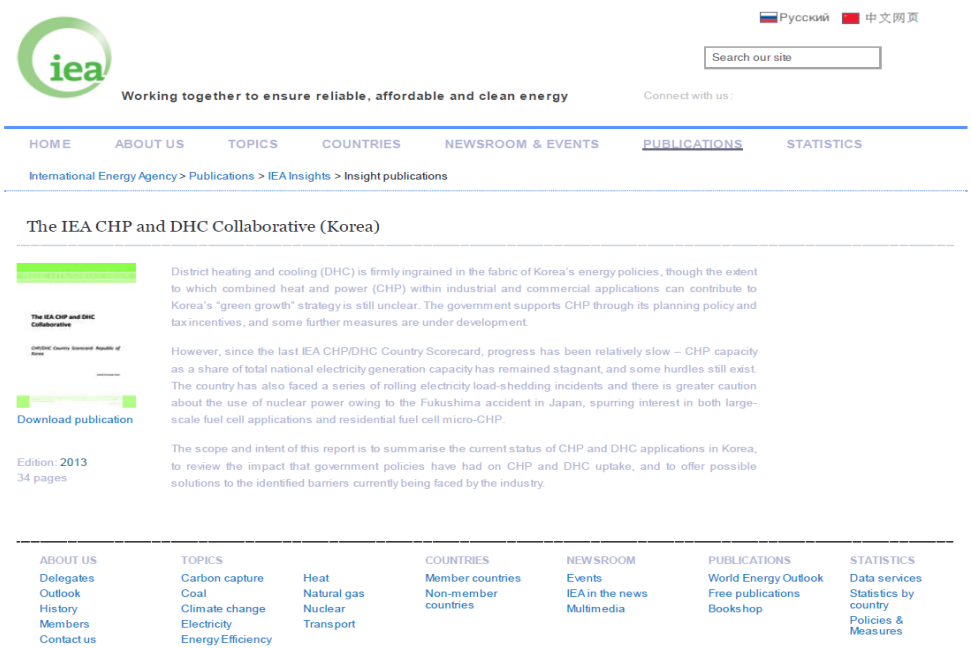
2008-2009 scorecards

- ✓ China
- ✓ Denmark
- ✓ Finland
- ✓ Germany
- ✓ India
- ✓ Japan
- ✓ Korea
- ✓ Netherlands
- ✓ Russia
- ✓ US
- ✓ UK



Phase III Country Scorecards

Country	Status
Finland	✓
Japan	✓
Korea	✓
India	✓
US	Ongoing
Mexico	Ongoing



✓ All published scorecards are available for free download on the IEA website: www.iea.org/chp/countryscorecards

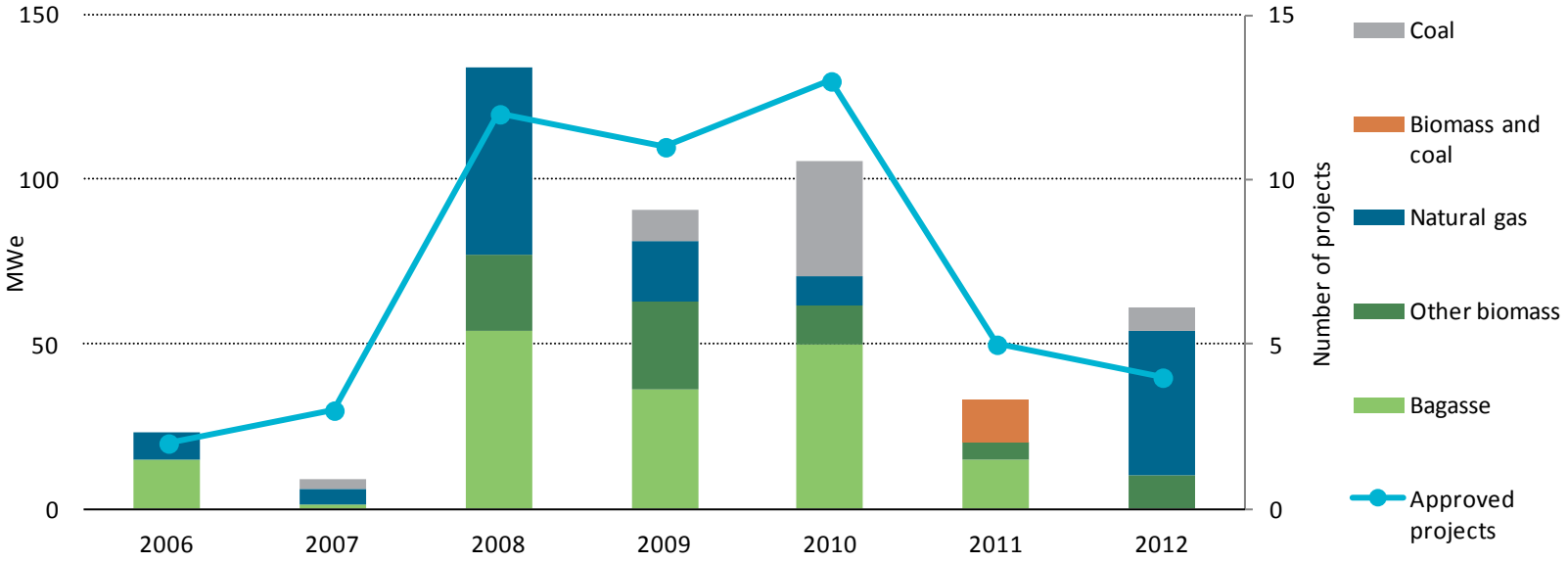
India (2014) – Setting the scene

- ✓ World's 3rd largest energy consumer, focused on meeting growing demand reliably and sustainably
- ✓ Strong policy incentives for CHP in sugar industry – exceeded national target for bagasse-based CHP
- ✓ Very few DC systems in operation; a few major projects raising the profile
- ✓ Lack of centralised collection of comprehensive data on CHP and DHC – only bagasse and renewable non-bagasse CHP are centrally monitored

India (2014) – CHP overview

- ✓ Comprehensive, centralised data on CHP in India is very limited
- ✓ Potential exists in a variety of sectors (an estimated 14 GW for industrial CHP)
- ✓ Incentives focus primarily on bagasse-based applications

Approved CHP-based CDM projects in India, by fuel and capacity



India (2014) – DHC overview

- ✓ Very few projects – a few large projects such as Gujarat International Finance Tec-City and DLF Cybercity have been completed in recent years
- ✓ Significant growth is projected in space cooling demand, which could be an opportunity for expansion of district cooling

India (2014) – Key findings

- Challenges
  - ✓ Data on CHP and DC in India is very limited
  - ✓ Policy incentives focus mainly on bagasse-based CHP
  - ✓ Complex gas pricing and allocation policies can be a barrier to CHP competitiveness
- Potentials
  - ✓ Large potential for CHP in industry
  - ✓ Improvement of natural gas infrastructure could improve prospects for CHP
  - ✓ Increase in space cooling demand could drive DC deployment

India (2014) – Policy recommendations

- Central and state government support
  - ✓ Increase and standardise data collection
  - ✓ Promote strategic planning and assessment of CHP/DHC projects at the planning phase
  - ✓ Reward energy efficiency and consider full benefits of CHP/DHC
  - ✓ Increase coordination between central and state energy agencies
  - ✓ Develop national database of policies and regulations as well as standard measurement and validation methodology
- Private sector initiatives
  - ✓ Establish frameworks for data collection, technology assessment and knowledge sharing
- Enhanced cooperation
  - ✓ Create public-private partnerships
  - ✓ Partner with countries that have successful CHP/DHC implementation strategies

Next steps

- India scorecard will be disseminated at the 2014 Clean Power Asia conference
  - ✓10-11 June – Bangkok, Thailand

- Proposed Phase IV work programme (2015-2016)
  - ✓2 additional country scorecards

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Thanks

Don't miss: *http://www.iea.org/chp/*