

CHP/DHC Strategic Workshop Country Scorecards

Paris, 27-28 May 2014

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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





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Phase III Country Scorecards

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|---------|--------------|---|
| Country | Status | Working together to ensure reliable, affordable and clean energy Connect with us: |
| Finland | \checkmark | HOME ABOUT US TOPICS COUNTRIES NEWSROOM & EVENTS <u>PUBLICATIONS</u> STATISTICS International Energy Agency > Publications > IEA Insight publications |
| Japan | ✓ | The IEA CHP and DHC Collaborative (Korea) District heating and cooling (DHC) is firmly ingrained in the fabric of Korea's energy policies, though the extent |
| Korea | ✓ | to which combined heat and power (CHP) within industrial and commercial applications can contribute to Korea's "green growth" strategy is still unclear. The government supports CHP through its planning policy and tax incentives, and some further measures are under development. |
| India | \checkmark | as a share of total national electricity generation capacity has remained stagnant, and some hurdles still exist. The country has also faced a series of rolling electricity load-shedding incidents and there is greater caution about the use of nuclear power owing to the Fukushima accident in Japan, spuring interest in both large- scale fuel cell applications and residential fuel cell micro-CHP. |
| US | Ongoing | Edition: 2013 The scope and intent of this report is to summarise the current status of CHP and DHC applications in Korea, to review the impact that government policies have had on CHP and DHC uptake, and to offer possible solutions to the identified barriers currently being faced by the industry. |
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 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

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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





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

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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

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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

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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



Thanks

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

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