green electricity consumption and demand in China
Survey Results Summary
Green Electricity Consumption and Demand in China

Overview

Between 10th October 2016 and 21st April 2017, international not-for-profit, The Climate Group (TCG) undertook a survey on behalf of Green Electricity Action Plan, funded by Energy Foundation (EF), to help uncover the demand and utilization of renewable electricity (RE) by industrial parks and corporates in China. The Executive Summary with key findings from this survey are included below.

The findings are based on responses from 101 respondents, including 8 industrial parks and 93 companies, and will inform Green Electricity Action Plan’s future work by confirming the growing demand for renewable electricity in China, as well as identifying some key levers to ensure further growth of the corporate market.

Executive Summary

— The survey findings highlight a growing interest in understanding the proportion of RE supplied in the standard electricity grid, with over 50% of respondents requesting more transparency.

— The research compares RE consumption willingness under two scenarios with the first looking at current practice, i.e. restricted market access to RE for end users, and the second focusing on liberalized electricity markets, enabling easy and efficient access to RE for end users.

The feedback confirms that 62.5% of industrial parks and 26.9% of companies in the sample have set targets or have plan to set targets for the purchase of RE under current market conditions. However, 100% of industrial parks and 69.9% of corporate respondents would increase their RE procurement targets if RE procurement were supported by favorable market and policy conditions, as described in scenario 2.

Therefore, the survey indicates that the development of favorable policy mechanisms and practical business models to help industrial park and corporate end-users procure RE is crucial to unlocking the corporate market for RE.

— When access to RE is facilitated by favorable market and policy conditions, total RE demand identified in our 93 sample corporates (based on targets rather than current consumption) equates to about 2.7TWh/yr, representing about 11% of their annual total power consumption. International companies surveyed tend to have the most ambitious targets, however, there is also significant increasing demand for RE from Chinese companies.

— Of the possible procurement routes, 62.5% parks and 61.3% corporates prefer to purchase RE directly from the RE supplier through the grid.
— Pricing is one of the crucial parameters influencing the willingness of end users to participate in direct purchase of RE. 87.5% parks and 86.0% corporates stated that they would only undertake RE direct purchasing if this entailed no additional cost compared to standard tariffs and 12.5% parks and 11.8% corporates indicated surcharge within 0.1RMB/kWh is acceptable.

— RE Long term, stable and reliable supply are the primary requirements of industrial parks and corporates regarding their RE direct purchases.

— In summary, the following supporting activities were cited as essential to enable further growth of the RE market for corporate procurement:

- RE policy interpretation and knowledge sharing;
- Solution recommendations (technical and strategic advice);
- Pilot projects to develop experience and provide case studies;
- Assistance in communications with power generating companies, grid operators, power retail companies, local governments and regulatory authorities.

About Green Electricity Action Plan

Green Electricity Action Plan funded by Energy Foundation (EF) is a collaboration of partners including Chinese Renewable Energy Industries Association (CREIA), World Resource Institute (WRI), Rocky Mountain Institute (RMI) and The Climate Group (TCG). The collaborative aims to assist corporates in overcoming the policy and economic obstacles to RE uptake by:

— Showcasing successful business models to government and grid companies, to increase the availability of RE procurement options; and,
— Developing policy mechanisms and business models, whilst helping power consumers to establish pilot project(s) and demonstrations on RE procurement and consumption.

Survey methodology

The survey was conducted amongst 16 industrial parks located in eastern coastal and western China and 140 influential companies which have operations in China in the retail and services, manufacturing, information & technology & E-commerce industry sectors. Effective respondents to the survey feedback included: 8 industrial parks; 93 companies. The following issues were explored through the survey:

- Power mix and current RE utilization
- Existence of RE consumption targets and strategies
- Willingness to participate in RE direct purchase and recommendations for improvement.

The survey was undertaken online, with follow-up telephone calls to 90% of participants. It can be found at the following links:

- https://jinshuju.net/f/VAWqKZ
- https://jinshuju.net/f/c53itF