QR Codes for Appliances and Equipment

Enabling Access to Information and Facilitating Compliance

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China Energy Label Center
China National Institute of Standardization (CNIS)
About China Energy Label (CEL)

- **Legislation basis**: "Energy conservation law", "Product quality law", "Certification and accreditation regulation ", "Administration regulation of energy efficiency label 

- **Type of Program**: Mandatory labeling program

- **Authorities**: National Development and Reform Commission (NDRC), General Administration of Quality Supervision, Inspection and Quarantine of China (AQSIQ) and Certification and Accreditation Administration of China (CNCA)

- **Implementing agency**: China national institute of standardization (CNIS)

- **Implement pattern**: Stick China Energy Label on product or obvious places of product package if product itself is small. Introduce the information of energy efficiency grade on user’s manual
About China Energy Label (CEL)

**Manufacturer**
Self-declaration (Key features)

- **Inspection**: Self-arranged
- **Label information**: Determined by enterprises based on test results and related standards
- **Print and Paste**: By enterprises based on related requirements
- **Responsibility**: Enterprises are responsible for the accuracy of the label information and are supervised.

**Product information registration**
(Management method)

- **Verification**: Energy efficiency information and Laboratory testing ability
- **Announcement**: on [www.energylabel.gov.cn](http://www.energylabel.gov.cn) and related media

**Market Supervision and Management**
(Basic guarantee)

- **Annual inspection** by AQSIQ
- **EEL implementation inspection** by local authorities
- **Market special inspection of EEL** by NDRC etc. competent departments;
- **Social Supervision** by the public and industry organization
About China Energy Label (CEL)

Model number

**Grade 1:** High Energy Efficiency and Low Energy Consumption

**Grade 5** (sometimes Grade 3 if there are three levels for that product): Low Energy Efficiency and High Energy Consumption

Valid Energy Efficiency Standard (EES)

Ultimate Responsible Party or Brand Owner

Present energy consumption indicators and main energy performance indicators which are determined according to Regulation on Label Implementation of each target product

74.5% 97.3% 440B 1.8B 33 10
## Why using QR Code for CEL

<table>
<thead>
<tr>
<th></th>
<th>Expected Function of CEL</th>
<th>Limitation of Current CEL</th>
</tr>
</thead>
</table>
| **For Consumers**      | Adequate information provided for guiding consumers to purchase energy-efficient products | • Hardly understand indicators on label (EEI, APF, etc.)  
• Limited size and information, could not make well informed purchase decisions. |
| **For Manufacturers**  | More product information provided for promoting the product                            | • Limited size, more products information could not be pushed to consumers  
• No interaction with consumers                                                   |
| **For Market Supervisors** | Utilized as An important supervision tool of products quality for government       | • Many assistant tools needed  
• Reading-recording-inquiry by person, leading to many mistakes and reduces the work efficiency |
Why using QR Code for CEL

90.8%
1.256 billion people
Use cell phone

More than 600 million people
Have access to smart terminal product

470 million people
Surf the internet via mobile network

Internet +
Why using QR Code for CEL

- Easy operation and quick response
- Simple scanning equipment required
- No technology patent
- Low cost
- Consumer-friendly
QR CEL Implementation Road Map

- Study & Design
- Release to public
- Voluntary & Trial
- Mandatory
- Revise regulation
- Collect suggestions

(In plan) → (In plan) → (In progress)
QR CEL

Current Coverage

AC, VS-AC, Refrigerator, Electric washer, Electric water heater, Induction cooker, Rice cooker, Fan, Flat-panel TV, Microwave oven, Heat Pump, Range hood, Photocopier/Printer/Fax Machine

- Sales volume
- Social effect

web link ➔ registration number ➔ sole model
QR CEL Data Flow

- **CEL Management Center**
- **Registration Database**
- **Webpage for mobile phone**
- **QR code**
- **Consumers**
- **Manufacturers**
- **Market supervisors**

**流程：**
1. **注册（Register）**
2. **审核并批准（Review and approve）**
3. **扫描（scan）**
4. **匹配（match）**
5. **粘贴（paste）**
Energy grade

User center, consumer can login by their cell phone number, can share the current model to social networks, or save to their favorites.

An entrance of public service survey

Current model's popularity. (scanned amount, collected amount)

Product model
Manufacturer

A button, click to show a energy indicators page. (next slide)

Utility fee calculation

Customer service phone number from manufacturer

An entrance of old appliances recycling. User submit related information of old appliance, waiting for the recycling company, door-to-door service.
QR CEL Scanned result

Official web site

Energy Grade Indicator

Energy efficiency information
Different from the paper energy label, for consumers, these information use easier understood words to replace the technical parameters.

Registration number
Announcement date
These information does not appear on the paper energy label.

Model
Manufacturer

Reference standard number

BCD-450ZP9CJ
合能美菱股份有限公司

2级
能效等级

0.59
(kWh/24h/度/天)

300
(升)

冷冻室容积

冷冻室容积

约等于一枚25W的节能灯
点亮24个小时

约等于600个普通500ml盒装奶

约等于150个普通500ml盒装奶

依据国家标准GB 12021.2-2008
Scanning QR CEL

• Consumer can use any QR code scanning APP to access QR CEL.

• CNIS developed specialized APP to help consumer get more knowledge of energy efficient by scanning QR CEL. This APP is supported by CLASP.
QR CEL Implementation Milestones

8 JUL, 2013 - Initial QR CEL project.

15 JUN, 2014 - Reported QR CEL implementation solution to NDRC, AQSIQ and CNCA.

11 OCT, 2014 - Published QR CEL.

16 OCT, 2014 - Encouraging manufacturers to voluntarily use QR code on CEL.

QR CEL Implementation Milestones

**17 OCT, 2014** – Trial QR CEL with MeiLing (a manufacturer), started collecting advices from manufactories. Later, a total of 45 manufactories joined to trialing.

**25 DEC, 2014** – Carried out one-month-long consumers communication activity with Suning (a famous household appliances dealer in China). Meanwhile, began collecting consumer opinions.
QR CEL Implementation Milestones

20 MAR, 2015 – Added QR CEL to revising version of Administration regulation of energy efficiency label.

20 MAY, 2015 – Began collecting advices from supervision agency.

8 AUG, 2015 – Updated QR CEL scanned result to current version, after studied then accepted advices from stakeholders. Communicated to consumers in Sustainable Consumption Week (an activity held by UNEP).
Implementation of QR CEL (1 JAN – 31 JUL)

<table>
<thead>
<tr>
<th>Models</th>
<th>Scanned</th>
<th>Appearing cities</th>
</tr>
</thead>
<tbody>
<tr>
<td>4,092</td>
<td>340,000+</td>
<td>372</td>
</tr>
</tbody>
</table>

**TOP5 Scanned**

<table>
<thead>
<tr>
<th>Brand</th>
<th>Models</th>
<th>Scanned</th>
</tr>
</thead>
<tbody>
<tr>
<td>MELING</td>
<td>312</td>
<td>48113</td>
</tr>
<tr>
<td>GREE</td>
<td>83</td>
<td>21221</td>
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<tr>
<td>TCL</td>
<td>155</td>
<td>17149</td>
</tr>
<tr>
<td>ROBAM</td>
<td>88</td>
<td>6902</td>
</tr>
<tr>
<td>Joyoung</td>
<td>76</td>
<td>8291</td>
</tr>
</tbody>
</table>
Thanks for your attention.

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