



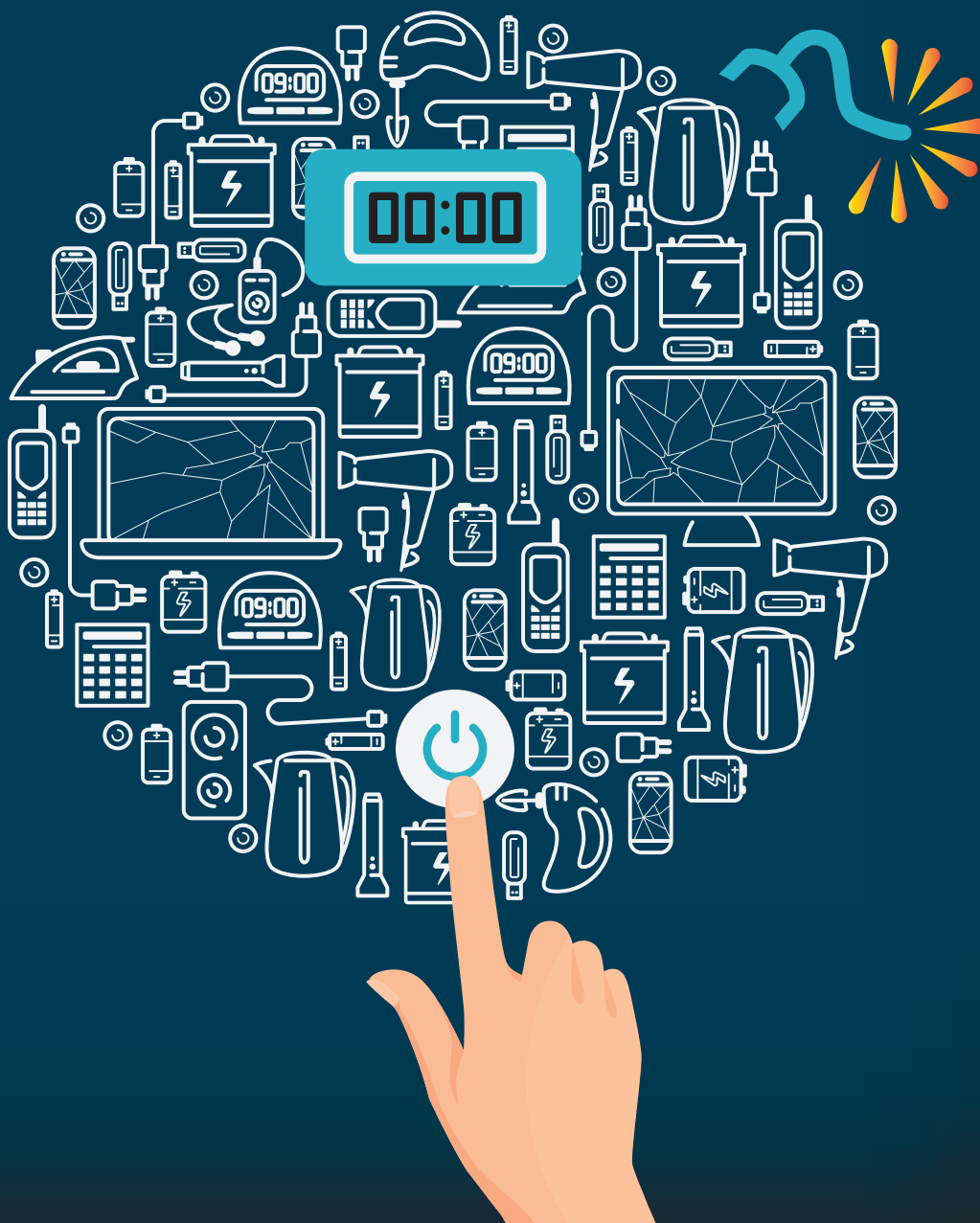
Toxics Link
for a toxics-free world

TIME TO REBOOT



E-WASTE RULES:

ASSESSING EPR COMPLIANCE





Toxics Link
for a toxics-free world

TIME *to* REBOOT

About Toxics Link

Toxics Link is an Indian environmental research and advocacy organization set up in 1996, engaged in disseminating information to help strengthen the campaign against toxics pollution, provide cleaner alternatives and bring together groups and people affected by this problem.

Toxics Link's Mission Statement - "Working together for environmental justice and freedom from toxics. We have taken upon ourselves to collect and share both information about the sources and the dangers of poisons in our environment and bodies, and information about clean and sustainable alternatives for India and the rest of the world."

Toxics Link has a unique expertise in areas of hazardous, medical and municipal wastes, international waste trade, and the emerging issues of pesticides, Persistent Organic Pollutants (POPs), hazardous heavy metal contamination etc. from the environment and public health point of view. We have successfully implemented various best practices and have brought in policy changes in the afore mentioned areas apart from creating awareness among several stakeholder groups.

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ABBREVIATIONS

CPCB	Central Pollution Control Board
EEE	Electrical and Electronic Equipment
EPR	Extended Producer Responsibility
MPPCB	Madhya Pradesh Pollution Control Board
Mt	million tonne
OECD	Organisation for Economic Co-operation and Development
PRO	Producer Responsibility Organisation
RoHS	Reduction of Hazardous Substances
SPCB	State Pollution Control Board

BACK

44.7 mt

of E-waste was generated in 2016 globally, which has been predicted to reach as high as

52.2 mt

in 2021



GROUND

The launch of a new model of a cellphone with new technology, more desirable features and most importantly an even better camera resolution, makes us excited about ditching our old phones and buying a new one. A bigger screen television, refrigerator with new features or a latest laptop also evokes similar enthusiasm. With disposable incomes high, we probably do not even think twice about going ahead and buying that desirable piece of electronics. Very rarely do we wonder about the fate of the old gadget that we are going to discard in the process. And it is even rarer that we recognize that the unwanted old phone or computer contains a plethora of toxic materials and may poison our surroundings and in the process “US.”

The increasing consumption and discard behavior, primarily due to a ‘design for dump’ strategy and resultant changing consumer behavior leads to a generation of exponentially increasing E-waste. According to Global E-waste monitor report: 44.7 mt of E-waste was generated

According to OECD, Extended Producer Responsibility (EPR) is an approach under which the producers are given significant responsibility to handle/recycle the end of life products.

in 2016 globally, which has been predicted to reach as high as 52.2 mt in 2021. In Asia, India contributed around 2 mt of E-waste in 2016, only second highest after China. This is despite the fact that the per capita usage of electronics in India is much lower than many countries, which means that the waste generation can grow manifold in future.

A large quantum of this complex and toxic E-waste (WEEE) is being handled by the informal sector in India. The practices followed in processing E-waste by this unorganised sector involve dismantling components with bare hands, heating them using blow torch, acid bath, open burning and dumping the remains in unauthorized ways. Since WEEE contains a cocktail of toxic materials like lead, cadmium, mercury, brominated flame retardants and poly vinyl chloride etc., the unscientific handling and processing leads to damaging impact on human health as well as to the environment.

Recognizing these as serious concerns the Ministry of Environment, Forest and Climate change, on the insistence of citizens, brought in a legal framework for e-waste in 2011, applicable from 2012. The Rules had EPR (Extended Producer Responsibility) as a key principle and placed significant responsibility on the Producers (companies or brands putting EEE in market). However, even after 8 years of the first legal framework, the current practices in India suffers from major drawbacks including,

- ▶ Inventorization of waste
- ▶ Effective collection and processing mechanisms
- ▶ Reluctance on the part of Companies to implement EPR
- ▶ Awareness amongst the consumers
- ▶ Illegal recycling
- ▶ Proper recycling standard
- ▶ Stringent implementation of the rules

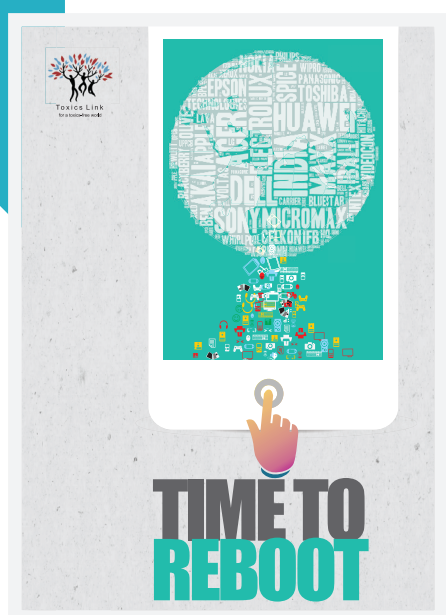
It is critical to address some of these concerns as e-waste is not just a toxic waste issue but also contains a wealth of non-renewable resources.

Time to Reboot

2014

17/50

brands were found to be completely violating the E-waste rules



Post the E-waste (Management and Handling) Rules in 2011, Toxics Link felt the need to check the efficacy of the Rules and understand if there were any changes on ground. Since the E-waste rules were primarily based around EPR, it was felt that it would be apt to evaluate the Producers and how they were implementing EPR provisions. Based on our understanding and knowledge a rating system was framed, looking at various aspects of collection, recycling, awareness etc.

The study was carried out and the first Time to Reboot report was published in 2014, two years after implementation of the 2011 rule. The performances of 50 top electrical and electronic brands were tested against various criteria. The findings were alarming, where 17 out of the 50 brands were found to be completely violating the E-waste rules as they had not taken any steps towards fulfilling their responsibility under EPR. Another 15 brands also fared poorly as they had taken very little action. The remaining had initiated some amount of action, but only 3 brands among these featured in the good performance category. The study clearly indicated that EPR was still primarily on paper and was not put in action. The report also highlighted lack of preparedness of the State Pollution Control Boards, who were the main implementing agencies under the 2011 Rules.

The well received report did not only trigger discussions on the effectiveness of the rules but also caused some changes on the ground. Post the release of the report many companies set up a take back system and SPCB worked upon its implementation and monitoring system.

Time to Reboot II

2016

18/51

were found
violating the
E-waste Rules



In 2015, it was time to re-examine the performance of the Producers. Time to Reboot II was published, based on re-evaluation of the efforts of producers on issues related to E-waste. The criteria were revised and made a little more stringent, considering that the rules had been in force for 3 years.

There was substantial difference between the results of the two reports. This time around, 36 out of the 51 companies had a take back system in place, which was a big improvement from the first report. As opposed to 2014 where no collection centers were operational, collection centers of 19 out of 51 companies were operational. But it was appalling to see how collection centers of a few companies only existed on paper. On the new parameter on Reduction of Hazardous Substances (RoHS), added in this version, 34 Producers were compliant (a mandatory requirement of the national law).

Though improved efforts were noticed, there were many gaps and overall it seemed that things were not changing much on the ground and Producers were not really fulfilling their responsibilities.

The report clearly indicated that there was need to revisit the Rules and make it more stringent so that the Producers are forced to bring in better EPR systems.

The two reports underlined the fact that the Producers were not taking the E-waste Rules very seriously. Even though the study looked only at the top brands, the ones who were leaders in this field, the compliance was poor. Most of these Producers were multi-national and were implementing EPR systems in other countries, but in India they were still offering excuses. This clearly brought forth the concern of DOUBLE STANDARDS. If the top companies were in this

state, it is easy to surmise the compliance status of the complete sector.

The lack of effort by Producers, clearly brought out in two reports, underlined the need to revisit the Rules. Deliberations between different stakeholders in the next couple of years were positive and the Indian government introduced the *E-waste (Management) Rules, 2016* superseding the 2011 rules, making the norms stringent. Though the primary principle of the last Rules, i.e. EPR, is still the mainstay of this version as well, EPR framework has been defined further, bringing in more clarity. Introduction of Producer Responsibility Organization (PRO) gave more impetus to collective EPR. Collection target is one major change in the newer version of the Rules.

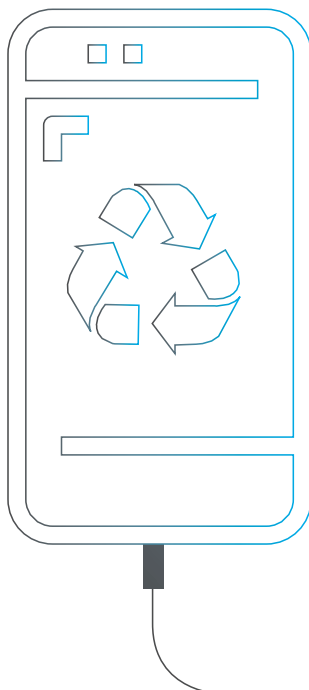
Also, Compact Fluorescent Lamp (CFL) and other mercury containing lamps were brought under the purview of the rules, thereby bringing in many new companies under the ambit of the new rule.

With many modifications in the legal framework, it has been assumed that things on ground will also change. However, based on our experience during Time to Reboot I & II, we realize that the functionality of rules on ground could be an altogether different reality. Hence there was a need felt to revisit the Time to Reboot framework and reassess the performance of the key EEE Producers. The two year gap from the last version of the report was because of the new Rules as well as giving some time to Producers to put their act together.

OBJECTIVES

- ➔ To evaluate the performance of Producers with respect to the implementation of E-waste (Management) rules, 2016, especially EPR.
- ➔ To assess the accessibility of information/ services for a consumer with regards to the take back system.

Time to Reboot aims to not only evaluate whether the legal requirements are being fulfilled by the producers but also goes beyond it. The idea is to assess if the Producers are serious about setting up a system which will enable proper collection and processing of e-waste. This would mean not just having a takeback system but also communicate it effectively to the consumers. And hence information available and accessible on Producers' website, informative helplines and operational take back centres assume importance. It is important to understand that aim of E-waste rules is not to make Producers set up systems, or promote recycling infrastructure but is to ensure that e-waste does not cause any harm to human health and environment. For this it is necessary that actions and efforts are designed in a way that they are effective and results in achieving the desired impact.



ACTING AS WATCHDOG

METHODOLOGY

The new rating has been devised by Toxics Link and is based on their understanding of the current requirements of E-waste (management) Rules, 2016 and E-Waste (Management) Amendment Rules, 2018.

1. The criterion for Time to Reboot III was revised according to 2016 rules and amendment (2017). As mentioned above, some of these were beyond the Rules.
2. This evaluation also brought in the lighting companies in the ambit, as they were the new stakeholder included in the newer version of the Rules.
3. For collecting data we relied on information from producer website (annexure), helpline number (provided on Producer websites), direct questionnaire to the producer (annexure) and information provided by Pollution Control Boards in public realm.
4. After collecting information according to the criterion comprehensively the companies were given score which were tabulated (please find the tables attached in the results). The companies were then divided into 4 categories,



Companies with score between
0 – 49 – Poor Rating



Companies with score between
50 – 99 – Below Average Rating



Companies with score between
100 – 149 – Average Rating



Companies with score between
150 – 200 – Good Rating

5. Further analysis was done according to these score and rating.

Criteria

Total of 200 points

1. Authorization from CPCB (A maximum of 5 points)

(Source: - Website /Producer questionnaire)

No	0
Yes	5

2. Take back policy (A maximum of 20 points)

(Source: - Website/Help Line number/Producer questionnaire)

No	0
Yes (self/PRO/recycler)	20

3. RoHS compliance of the product (A maximum of 20 points)

(Source: - Website/Producer questionnaire/ EPR authorization plan)

No	0
Yes	20

4. Submitted annual returns under E-waste rules 2016 & amendment 2018 for the year 2017-2018(A maximum of 5 points)

(Source: - Producer questionnaire/CPCB Website)

No	0
Yes	5

5. E-waste collection target achieved as per E-waste rules 2016 (Response from the questionnaire) (A maximum of 20 points)

(Source: - Producer questionnaire/CPCB)

No	0
Yes	20

6. Information with customer care or the helpline provided (A maximum of 20 points)

(Source: - Helpline)

Information not provided	0
Information provided	20

7. Take back center operational (A maximum of 20 points)

(Source: - Field visit)

No	0
Yes	20

8. Tie up with authorized recycler for environmentally sound recycling and disposal of E-waste collected through take back program (A maximum of 15 points)

(Source: - Website /Producer questionnaire/ CPCB Website/ EPR authorization plan)

No	0
Yes (Via PRO/other)	15

9. Sufficient information on the brand's website (A maximum of 10 points) (based on the website)

(Source: - Website)

No information	0
Information on take back	5
Information on collection mechanism	10

10. Information provided on the product booklet (A maximum of 15 points)

(Source: - Website/Producer questionnaire)

Information on RoHS	5
Information on E-waste and mechanism of returning the end of life product/information on collection system	5
Material safety data sheet (Info regarding hazards, improper handling, accidental breakage etc.)	5

11. Collection centers/pick up in states/UTs (A maximum of 15 points)

(Source: - Website /Producer questionnaire)

No	0
> 10 states	5
> 20 states	10
All states	15

12. Ease of Access to information on Public Domain(A maximum of 10 points)

(Source: - Website/ Helpline)

No information	0
Accessible but not very convenient	5
Easily Accessible	10

13. Awareness Campaigns conducted (A maximum of 15 points)

(Source: - Website/Producer questionnaire/EPR authorization plan)

Print media	5
Television ads	5
Social media	5

14. Any other initiative taken (A maximum of 10 points)

(Source: - Website/Producer questionnaire/ EPR authorization plan)

Engagement with informal sector	5
Direct engagement with consumers	5

→ **Authorization by CPCB**

According to the E-waste (Management) Rules, 2016 it is mandatory for producers of E-waste to get authorization from CPCB for collection and channelization of end of life EEE products mentioned in the rules. This information has been collected from the CPCB website, producers website and producer questionnaire.

→ **Take Back Policy**

According to Extended Producer Responsibility mentioned in the rules, it is mandatory for producers to have a takeback system. This information has been collected from producer website/ helpline number. If information was available on any of the given medium the company was allotted marks. This information was from a consumer perspective and hence information available only in public realm was considered for this.

→ **RoHS Compliance**

RoHS is mandated under the Rules and under that the Producers have been asked to provide self-declaration. Our evaluation also relied on self-declaration, and looked at company websites and the responses provided by Producers against the questionnaire sent to them. Additionally, EPR authorization plan available on MPPCB website was also considered, as it contained information regarding RoHS compliance.

→ **Annual returns under E-waste rules 2016 for the year 2017-2018**

It is mandatory for producers to submit annual returns under the E-waste (Management) Rules, 2016. This information has been gathered from the producers directly.

→ **E-waste collection target achieved as per E-waste rules 2016**

The collection targets are set for producers as per the Rules and amendment of 2018. Since this information is not available elsewhere, producers' response to our questionnaire was the only source for allotting the stipulated points.

→ **Information with customer care or the helpline provided**

The rules make it mandatory for E-waste producers to provide information on collection process on their website as well as a helpline number. Helplines become very crucial as consumers are most likely to use that to find out more information regarding returning their old equipment. Hence, the dedicated helpline number for recycling and waste management, provided on their websites was called and asked for information regarding disposing off e-waste. In case information on dedicated helpline was unavailable, the general helpline number of the company was also contacted.

→ **Take back center**

Field Visits were made to a collection center of brands, on the basis of information and addresses available on the company's website or helpline number. Because of logistic limitations, only one center in Delhi could be visited. But it was assumed that Delhi being the capital is likely to have a collection point of almost all the brands (since all brands included are national). The idea was to check if the collection center was working and accepting e-waste as stated in the website / helpline or was it only on paper. If instead of collection points, pick up facility

was mentioned by the Producer, this pickup service was also assessed.

→ **Tie up with Authorized Recycler**

The Producers are mandated, under the Rules, to send the collected waste to an authorised recycling company. Producer's response to our questionnaire as well as their website was used to source this information.

→ **Sufficient information on the brand's website**

Website is an important source of information for consumers, be it for the range of products, manuals or for takeback. Hence the information provided by the Producers' on their company websites assumes utmost importance. This criterion tried to assess if the information provided on it was adequate- mainly looking at if there was information on takeback system and collection points/pickup service.

→ **Information provided on the product booklet**

According to Rules the producers are mandated to provide information on the hazardous elements present in the electronic product along with information on take back center and collection in the product booklet. Since it was almost impossible to access booklets of all products of all the companies included, booklet of one or more product of each company (if available on website) was looked at. Additionally the Producers were also asked for information regarding the same.

→ **Collection centers/pick up in states/UTs**

Most studies across the globe have shown that convenience of takeback/pickup system is one of the key factors in participation of consumers, especially individual, in e-waste

management systems. In a vast country like India, it is certainly a big task to create a convenient collection infrastructure. But since all the companies included in the rating were selling products in all the states in India, we expected them to have collection/pick up systems pan India. Information on company website and producer questionnaire was used for obtaining information regarding the same.

→ **Accessibility of information**

This is an important criterion as this study not only evaluates legal compliance under E-waste Rules by the Producers but also assesses the take back system from consumer perspective. Hence it becomes important if the information provided by the Producers is in user friendly form and accessible to consumers. The website of Producers was assessed for the same.

→ **Awareness Campaigns conducted**

It is mandatory for the companies to conduct awareness programs through any medium so as to make the customers aware of Electronic waste, implications of it reaching the waste stream and the importance of proper disposal. Three major platforms print media, television and social media, which are probably the best ways to reach out to consumers, were used as the parameters. The producer questionnaire and EPR authorization plan was used for this criterion.

→ **Any other initiative taken**

This criterion was included in order to incorporate any other initiative that a company might have taken to improve e-waste management system. Two broad categories- engagement with the informal sector and direct engagement with consumers was included as the criteria for scoring and subsequent ranking.

Brands Included

There are thousands of companies putting EEEs, included in Schedule I of E-waste (Management), 2016, in the Indian market. It was obviously impossible to assess all of them in this study. Hence companies which had significant market share for each category of EEE were selected for the assessment. In this edition of Time to Reboot, 54 brands were included. Both Indian and

Multinational brands have been included, but all the companies were pan India. No regional or local (state or city specific) companies were covered. Unlike the earlier edition, major producers of CFL bulbs have been evaluated in this edition as CFL bulbs has been now listed in Schedule I of the Rules. The companies/brands included are:

Acer	Apple	Asus	Bajaj Electricals	Beetel	Binatone	Blue Star	Bosch	Canon
Carrier	Daikin	Dell	Epson	Eveready	Godrej	Haier	Havells	Hitachi
HP Enterprise	HP India	HTC	Huawei	iball	IFB	Intex	Karbonn	Kyocera
Lava	Lenovo	LG	Micromax	Mitsubishi Electric	Motorola	O General	One plus	Onida
Oppo	Oreva	Osram (LED- VANCE)	Panasonic	Philips Lighting (Signify)	Ricoh	Samsung	Sony	Surya
Toshiba	Videocon	Vivo	Voltas	Vu	Whirlpool	Wipro	Xerox	Xiaomi

Source of Information

Producers' website: Producer website was the most important resource for us. All major companies have dedicated websites where product related info is provided and consumers visit them often to look at the product range or manuals or any product service they seek. It is a good communication platform for providing information to consumers, both related to company policies and practices. The website of all the brands included in the study was accessed; the list is available in the annexure.

Helpline Number: The Rules suggest that Producers may set up helplines for providing information to consumers about takeback service. Helplines become vital as this is one way of addressing specific queries from consumers. Helplines were viewed both as an important aspect to be evaluated under this study and also an important source for some

Criterion where companies were marked only according to consumer perspective

- ➔ Take Back System
- ➔ Information with Customer Care
- ➔ Collection Center Operational
- ➔ Sufficient Information on Website
- ➔ Collection Center/Pickup in States/Uts
- ➔ Accessibility of Information

information. The dedicated helplines for e-waste or the standard helpline numbers were contacted, posing as a consumer and relevant information was inquired for.

Producer Questionnaire: Apart from information on take back from consumer perspective, the criterion included certain technical specifications; information which is not easily accessible in the public domain. Therefore the producers were contacted directly via emails and letters. The questionnaire sent to Producers has been put in the annexure. Additionally, emails were also sent to Associations like CEAMA, MAIT and ELCOMA so that the Producers' are not missed out.

CPCB Website: Under the E-waste Rules 2016, authorization for Extended Producer Responsibility is to be granted to the producer by Central Pollution Control Board. Hence CPCB website became an important source for us. CPCB website was looked at for information regarding EPR authorization. Since the EPR authorization

letters were uploaded on their website, these were accessed and information provided in those were also considered.

MPPCB Website: State Pollution Control Boards have an important role to play in environmental law governance. Under the e-waste Rules 2016, SPCBs have been assigned responsibility to monitor EPR-authorization as directed by CPCB, along with granting authorization to manufacturers, dismantlers, recyclers and refurbishers. Madhya Pradesh Pollution Control Board had under that, sought EPR plans of Producers. These plans have been put in public domain and hence were accessible. These were good source of information as many of the Producers, included in our study, had their EPR plans which gave out details of their functioning.

The information used for the report Time to Reboot III is up to date 31-10-2018.

Limitations of the Study

As mentioned above, there are probably thousands of brands putting EEEs in the Indian market. It was impossible for us to include all of those in the study. Hence we had to select some. Due to paucity of time and lack of resources, we decided to select 54 brands, based on their dominance in the market in select product range (based on Schedule I of the E-waste Rules). We also only included national companies and could not consider local or regional brands.

For all companies included in this study, any relevant source that could provide reliable information was looked at and considered for the evaluation including the Producer websites, EPR authorization with CPCB, EPR plan available elsewhere (found only on MPPCB website), helpline numbers and the collection centres. However in case of absence of data the companies were not given marks which resulted in their scoring zero. There is certainly a possibility of error in this, but sincere effort was made to gather information and be as thorough as possible.

Like the last edition of Time to Reboot, this time too the producers were sent a questionnaire. Letter as emails were sent out to Producers with reminders to send in their responses. However in the absence of a response the criterion which looked at the producer response was marked zero. Unfortunately, not many brands responded to the questionnaire and their ratings suffered.

Most Producers, who have a takeback system, had multiple collection centres. But due to resource limitation, only one collection center based in and around Delhi could be visited for every company. If the collection centre visited was non-functional, we did not visit any additional centres in Delhi, even it was listed.

Despite all the limitations, the rating was done to best of our ability and represents facts as they came across.

HOW BRANDS FARE?

Table 1: Brands with Poor Rating

Brands	Criterion														Total(200)
	Authorization from CPCB(5)	Take Back Policy(20)	RoHS Compliance(20)	Submission of Annual Returns(5)	E waste Collection Target(20)	Information with Customer Care(20)	Collection Center Operational(20)	Authorized Recycler(15)	Sufficient Information on Website(10)	Information Provided on Product Booklet(15)	Collection Center/Pickup in States/UT's(15)	Accessibility of Information(10)	Awareness Campaign(15)	Any other initiative(10)	
Eveready		0				0		0	0		0	0			0
Havells		0				0		0	0		0	0			0
Oreva		0				0		0	0		0	0			0
Videocon	5	0				0		15	0		0	0	0	0	20
Osram/LEDVANCE	5	0	20			0		0	0		0	0	0	0	25

Five out of the fifty four brands, included in the study, feature in 'Poor' category. It is rather unfortunate as India has E-waste Rules, in some form, now for almost 6 years and some companies still not taking basic initiatives is certainly a matter of concern. All companies featuring in this red box, except Videocon, are companies selling mercury containing lamps, which is a new product included under e-waste Rules. But, two years since the 2016 rules have been in force, there is not even a mention about e-waste on their website – it certainly reflects their reluctance towards setting up sound e-waste management system in the country.

None of the companies featuring here provided any information on take back policy and there was no information with their customer care helplines. They certainly appear to be 'Free Riders'.

The shrinking of the red list from the last rating report is certainly encouraging, 18 companies had featured in red in the last edition. Another noticeable change is that the large numbers of mobile companies which were in the red band in Time to Reboot II have moved up. So, the changed regulatory framework as well as pressure from different stakeholders is undoubtedly making a difference.

Table 2 Brands with Below Average Rating

Brands	Criterion														Total (200)
	Authorization from CPCB(5)	Take Back Policy(20)	RoHS Compliance(20)	Submission of Annual Returns(5)	E waste Collection Target(20)	Information with Customer Care(20)	Collection Center Operational(20)	Authorized Recycler(15)	Sufficient Information on Website(10)	Information Provided on Product Booklet(15)	Collection Center/Pickup in States/UTs(15)	Accessibility of Information(10)	Awareness Campaign(15)	Any other initiative(10)	
Bajaj Electricals Ltd.		20	20			0		0	10		0	0			50
Asus	5	20				0	0	0	10		10	10	0	0	55
Vivo	5	20				0		15	5		5	5	0	0	55
Voltas	5	20	20			0		15	0		0	0	0	0	60
Wipro		20				0	0	15	10		5	10			60
LG	5	20	20			0		15	5		0	0	0	0	65
Philips Lighting (Signify)	5	20				0	0	0	10		5	10	10	5	65
Xerox		20				20		0	5		10	10			65
Huawei	5	20	20			0		0	5		15	5	0	0	70
Micromax	5	20	20			0		15	5		0	5	0	0	70
Blue Star	5	20	20			0		15	5		0	0	5	5	75
Bosch		20	20			0	0	15	10		5	5			75
O General	5	20	20			0		15	5		0	0	5	5	75
Whirlpool	5	20	20			0	0	15	5	10	0	0	0	0	75
Haier	5	20	20			0		15	10		0	10	0	0	80
Hitachi	5	20	20			20		15	0		0	5	0	0	85
Surya	5	20				0	20	15	10		5	10			85
Binatone		20				20	0	15	10		15	10			90
Daikin	5	20	20			20		15	0		0	0	5	5	90
Onida	5	20	20			0	0	15	10		10	10	0	0	90
Toshiba	5	20	20			0	0	15	10		5	10	0	5	90
Apple	5	20	20			0		15	5		15	5	0	10	95
Beetel	5	20	20			0	0	15	10		10	10	0	5	95
IFB	5	20	20			20	0	15	5		10	0	0	0	95
Karbonn	5	20	20			20	0	15	5	10	0	0			95
Lenovo	5	20				20	0	15	5		15	5	0	10	95
One plus		20				20	0	15	10	5	15	10			95
Oppo	5	20				20		15	10		15	10			95
Sony	5	20	20			0	0	15	10		5	10	5	5	95

Twenty nine out of the fifty four companies assessed, i.e. more than 50%, are in the yellow list. A large number of cell phone companies have scored between 55 - 95 and are placed here. It is certainly disappointing to see so many global EEE giants featuring here in this list.

All companies listed here have a take back mechanism and most have tied up with authorised recyclers as well. But many of them have a take back system only on paper, as they did not provide any information/details on collection center or kept on redirecting somewhere else for information. Only 9 out of 29 companies

featuring here have information with customer care available and only one, Surya (a lighting company), had a functional collection point in Delhi. The below average rating of these 29 only goes to show that many of the Producers are only trying to comply with the regulation but are not serious about setting up a collection or takeback mechanism.

Producer Responsibility just does not end with mentioning about take back system on websites (which also was difficult to access in some cases)

but relevant information has to be provided about the collection process. In a country like India, where consumer awareness regarding e-waste is so low, it is important to use all possible media to reach out and give relevant information, which many of the companies featuring in this list failed to do.

The highlight was to see few lighting companies featuring here, but sadly they have not scored well and have a lot more to do.

Table 3 Brands with Average Rating

Brands	Criterion														Total(200)
	Authorization from CPCB(5)	Take Back Policy(20)	RoHS Compliance(20)	Submission of Annual Returns(5)	E waste Collection Target(20)	Information with Customer Care(20)	Collection Center Operational(20)	Authorized Recycler(15)	Sufficient Information on Website(10)	Information Provided on Product Booklet(15)	Collection Center/Pickup in States/UT's(15)	Accessibility of Information(10)	Awareness Campaign(15)	Any other initiative(10)	
Carrier	5	20	20			20		15	5		0	10	0	5	100
Epson	5	20	20	5	0	0	0	15	10	5	5	10	0	5	100
HTC	5	20	20			20	0	15	5		0	5	5	5	100
Mitsubishi Electric	5	20				20		15	10		15	10	5	0	100
Panasonic	5	20	20			0	0	15	10		10	10	5	5	100
Kyocera	5	20	20			0	0	15	10		15	10	5	5	105
Lava	5	20				20	0	15	10		15	10	5	5	105
Godrej	5	20	20			0	20	15	10		10	10	0	0	110
Vu	5	20	20	5	20	0	0	15	5	10	5	0	5	0	110
iball	5	20				20	20	15	10		10	10	0	5	115
Motorola	5	20				20	20	15	10		15	10	0	0	115
Xiaomi	5	20	20			20		15	10		15	10	0	0	115
Acer	5	20	20			20		15	10		15	10		5	120

Thirteen Producers feature in the blue list, signifying that most of these companies have complied with the Rules and have probably also made some efforts towards setting up a functional system. All of the companies here have a takeback system, have tied up with authorised recycler and have authorization from Central Pollution Control Board. Also, we could find positive information related to RoHS from most of these Producers. Only 2 out of 13 Producers in this colour band had responded to our questionnaire.

Though most of these companies are following best practices on paper, there were some gaps

identified. Helplines of all the companies were contacted but 5 of them could not provide us any further information or could not help us. Collection centres of only 3 brands, Godrej, iball and Motorola were functional, in the rest either the centre did not exist or the person at the centre said that they did not accept e-waste. This signifies that the policies are either only on paper or not percolating to everyone in the organisation.

The companies placed in blue have done well, but probably need to put in more effort and improve their system.

Table 4 Brands with Good Rating

Brands	Criterion														Total(200)
	Authorization from CPCB(5)	Take Back Policy(20)	RoHS Compliance(20)	Submission of Annual Returns(5)	E waste Collection Target(20)	Information with Customer Care(20)	Collection Center Operational(20)	Authorized Recycler(15)	Sufficient Information on Website(10)	Information Provided on Product Booklet(15)	Collection Center/Pickup in States/UT's(15)	Accessibility of Information(10)	Awareness Campaign(15)	Any other initiative(10)	
HP India	5	20	20			20	20	15	10		10	10	10	10	150
Dell	5	20	20	5	20	0	0	15	10	15	15	10	10	10	155
HP Enterprises	5	20	20	5	20	0	20	15	10	10	15	10	5	5	160
Intex	5	20	20	5	20	10	0	15	10	15	15	10	10	10	165
Canon	5	20	20	5	20	20	0	15	10	15	15	10	10	10	175
Samsung	5	20	20	5	20	20	20	15	10	10	15	10	5	5	180
Ricoh	5	20	20	5	20	20	20	15	10	15	15	10	10	10	195

Seven companies feature in green in our current rating system and most of them are new entrants! All companies featuring here have takeback system, tied up with authorised recycler, are RoHS compliant, and have authorization from CPCB. Also all of them provide adequate information on their website and also make it easy for consumers to access the details regarding takeback. This was certainly an encouraging sign as it seemed that these companies were keen to translate their policies into action on ground. But it was a pity that the helplines and collection centre of few of the companies listed here were non- functional.

As with our earlier versions of Time to Reboot, this version also saw Ricoh topping the charts with a score of 195. It is really heartening to see a Producer performing not just “good”, but consistently so. Also, it was encouraging to see Samsung, with its multi-product line up and large compliance requirement, meeting the criteria and standing second. All companies except Ricoh (green last time) and HP Enterprise (not included) were in the blue list in our last edition. So that they

have scored well and moved up to green is a step up. Even though the high score does indicate that these brands have taken EPR seriously and are putting efforts in creating a good eco system, our criterions are basic and there is certainly scope of improvement and making the takeback system more effective. A special mention has to be made to HP India which despite not replying to our producer questionnaire has managed a score of 150 and features in the good rating category.

It is a relief to see seven companies in the “good” category, compared to Time to Reboot II which had only three. The improvement though marginal gives us hope that the Producers will put in more effort. However, it was a bit disappointing that even in this category only four companies had an operational collection center/pick up service. The other companies need to ensure that all of their collection centers (which are listed on their website) are operational and provide the takeback service to consumers.

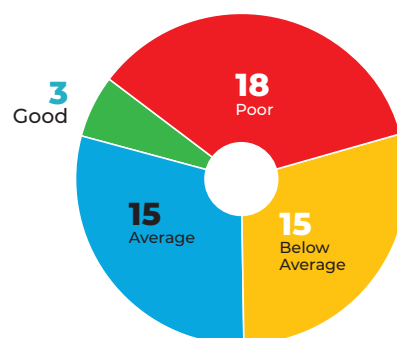
NEW RULES, BUT OLD PRACTICES?

Bare minimum efforts by most Producers indicate that there is no serious intent to improve e-waste management system in the country.

According to the E-waste (Management) Rules, 2016, 'Extended Producer Responsibility' means responsibility of any producer of electrical or electronic equipment, for channelisation of e-waste to ensure environmentally sound management of such waste. EPR may comprise of implementing take back system or setting up of collection centers or both and having agreed arrangements with authorized dismantler or recycler either individually or collectively through a Producer Responsibility Organisation recognized by producer or producers in their Extended Producer Responsibility – Authorisation.

The last study to assess EPR implementation was done in 2015. And the results were dismal as 18 brands were in red category and only 3 in green. It was evident from the results that most brands had failed to set up systems, not just on ground but also on paper. The Rules were being flouted openly as many of the companies had no takeback system and had not taken any measure to implement EPR. The report clearly highlighted the need to address the gaps in the Rules and implementation, especially related to EPR.

Rating 2015



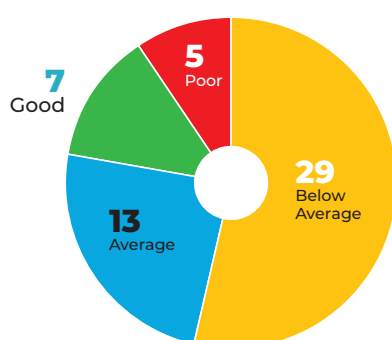
A lot has changed since Time to Reboot II including the Rules governing E-waste Management. The new Rules have redefined the responsibilities under extended producer responsibility, especially by bringing in targets. However our study reveals that the EPR roll out still remains unsatisfactory, especially on ground. On a positive note, as compared to 2015 (Time to Reboot II), there are lesser companies with 'Poor' rating; however most seem to have settled for 'Below Average', signifying that the Producers might be doing bare minimum so that they are not in violation with the Rules. A large majority of companies have take back system on paper but

their collection centers are either not functional or no clear information is available with the collection centers. Also lack of effort by the lighting companies is apparent.

In the third edition of our EPR rating on e-waste, there are only seven companies featuring in the green category, a bit better than few years back but certainly a lot more is expected as e-waste rules have been in the country for more than 8 years. It is certainly inexcusable to see so many multinationals, which have been running EPR systems in Europe and elsewhere for more than a decade, not being able to set efficient system in India. The national brands also certainly need to roll up their sleeves as most of them are placed in yellow or blue list.

Unfortunately, though the Rules clearly spell certain mandatory provisions related to EPR, inspite of violation companies are functioning in the country. This probably indicates that there is a need to make the enforcement stricter and regulatory agencies need to monitor the companies more closely, rather than just approve the paper plans.

Rating 2018

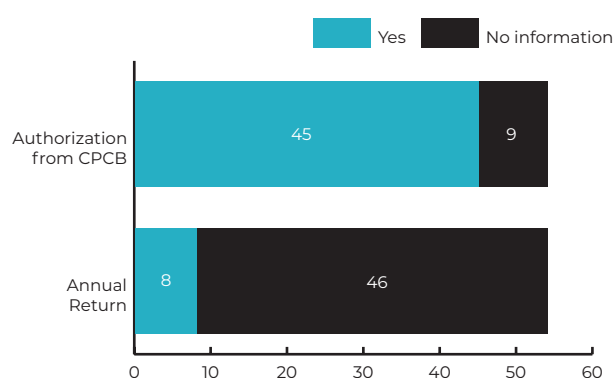


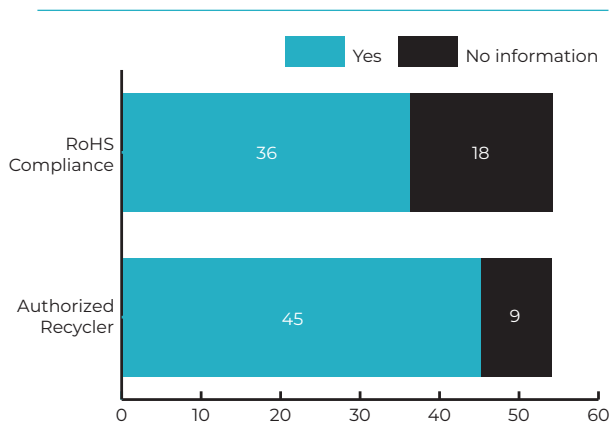
Are the companies following the basic mandates according to E-waste (Management) Rules, 2016?

As stated above, E-waste Rules clearly mandate that all companies which want to sell EEE in India, as listed in schedule III, have to obtain EPR authorization from CPCB. Though a large percentage, almost 85% of the companies included in the study have submitted EPR plans and received authorization, it is worrying to see that there are still some companies who have not done the same but are selling the products. EPR authorization could be found for nine companies but it is possible that CPCB website has not been updated and these companies have received authorization. Unfortunately none of these brands had responded to our query as well.

It is also mandatory for companies to tie up with an Authorized Recycler or a PRO (PRO will need to tie up recycler) and according to our findings; forty five companies included the study have done the same. It though remains to be seen as to the kind of due diligence these companies carry out before selecting a recycler. Producers' tie up with recycler and quality check can really help to make the recycling industry efficient and transparent.

The information on annual returns was solely dependent upon the producer questionnaire as this information was not available on websites of Producers or CPCB website. Though many producers may have filed returns, we could only allot points of the 8 brands who responded to the questionnaire sent by us.





An important provision under E-waste Rules is RoHS or Reduction in the use of Hazardous Substances (RoHS). This is the only clause which tries to address the issue of e-waste from upstream angle. The provisions are almost similar to EU RoHS and the e-waste Rules disallows sale of non-RoHS products in the Indian market. Hence this criterion assumes a lot of importance. From the information collected, and provided to us, we found only 36 Producers compliant with this provision. Probably, regulatory agencies need to carry out field assessment to investigate if RoHS non-compliant products are still being sold in the market and if yes, how can that be stopped.

Is the information provided by companies on public domain sufficient and accessible?

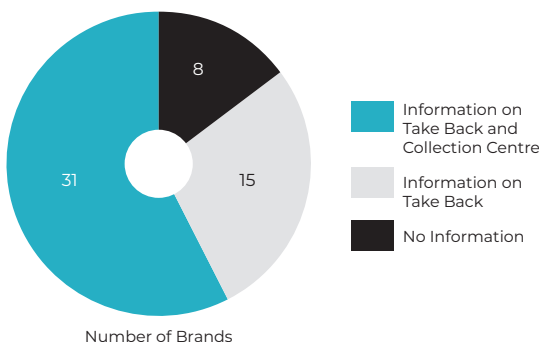
As many as eight companies had no information regarding a take back policy on their websites, which makes us wonder whether the companies are even taking E-waste (Management) Rules in the true spirit. Further though sixteen companies had information on take back they had no information for the consumers as of where the collection centers are or the pickup. Thirty One companies had information on both Take Back and collection center on their website, which is encouraging.

But 15 of the 54 Producers had placed e-waste related information in a way that it was not very accessible for consumers. We had to look through many pages before getting the required information which is not what we feel a consumer would do. Info regarding takeback and collection centre etc. needs to be strategically placed, so that not just people looking for it but other visiting the websites also notice it.

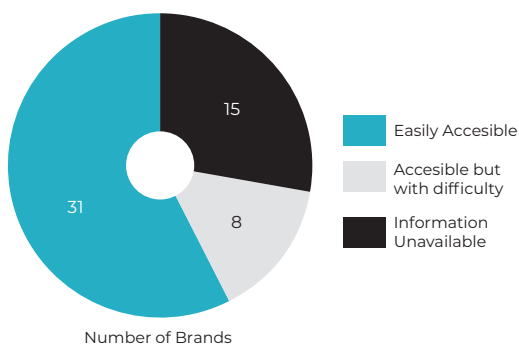
Most helpline numbers mentioned by many companies had no clue of a take back system, forget providing information about it. Almost 60% of the companies' helpline numbers had no information on Take Back System; the number is pretty high and makes the situation worrisome. How is the consumer expected to get information about returning their old equipment?

The information provided by the companies in the public domain has to be accessible by the consumers as well and from what we could gather, most Producers fared badly.

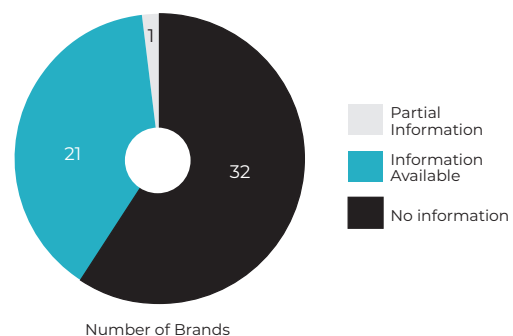
Information Sufficiency



Ease of Access to information



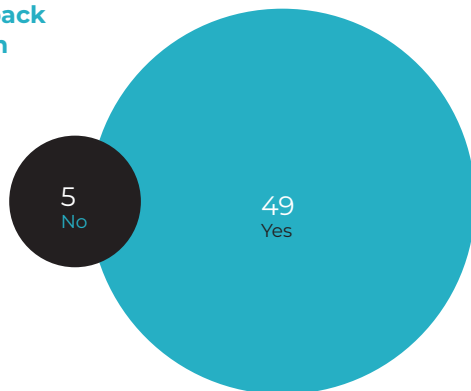
Information Available with Helpline



Backbone of E-waste management-Takeback

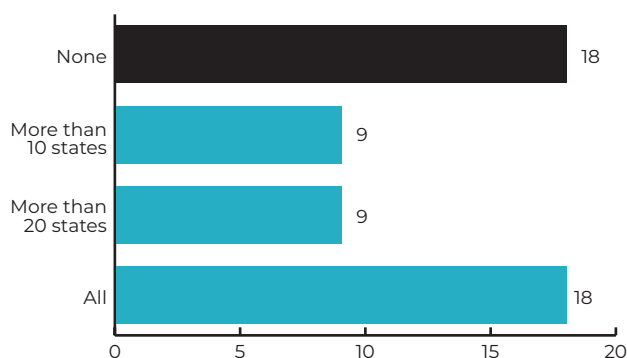
Takeback mechanism has been mandated for the Producers under EPR. Forty-nine out of fifty-four companies have mentioned about take back policy on their website, which was very positive. But 5 of them still haven't which is surprising.

Take back system



Takeback policy does not really mean that EPR is working. This is evident from the fact that 18 companies (including the 5 with no takeback policy) have no information on their collection centers either on their website or with the helplines. In some cases, the websites directed the consumer to contact the recycler to get additional information or send a mail, which makes it probably a little more inconvenient for the consumer to return back end of life products.

Collection Centres in States



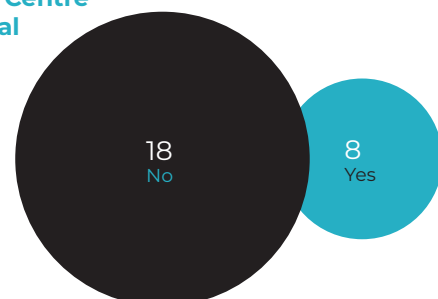
The next step after a takeback policy is to have effective collection mechanism. In a country like India, which has electronics penetrating in every corner of the country, e-waste is also generated at

every corner. This means that we require collection centres or pick up service in all corners as well- to start with, atleast in every state. Most Producers included in the survey have not been able to do it. Only 18 companies covered all states with their takeback mechanism. This means that in a large number of states, consumers have no choice but to dump e-waste or sell it to informal sector, which is in complete violation of the Rules.

But the most disappointing result was from the survey of collection centres. 26 collection centres of different Producers were visited (only these many had given information regarding the same on their website). This was done primarily to investigate if the collection centres listed for consumers were indeed functional. As mentioned in the methodology section, only one centre in and around Delhi of each of the Producers was visited during the study. It was shocking to see that only seven out of the twenty six collection centres were functioning and accepting waste. The entire point of a take back system is to collect the discarded E-products which stands failed in this situation. One of the collection centers of a big multinational brand had no idea what a take back system even is. The companies need to be certain about the collection centers' functionality; otherwise consumers are left disappointed especially if they have made the effort to dispose off their e-waste in a proper way.

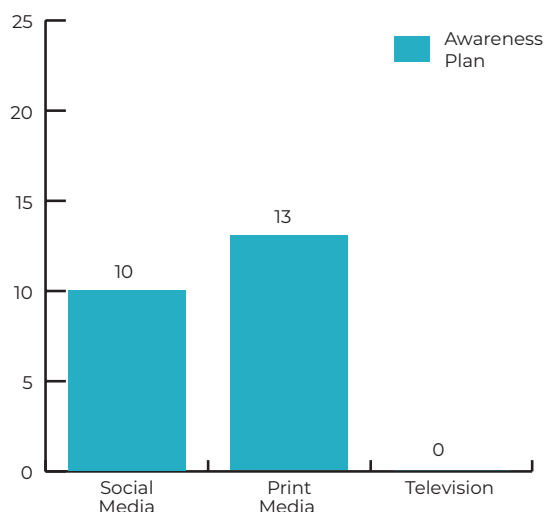
The results make it evident that many of these takeback systems are only on paper and not really functional on ground.

Collection Centre Operational



Outreach Plan

Creating awareness about E-waste is undeniably an important aspect of Extended Producer Responsibility as the consumers need to be aware of the hazards of E-waste and realize their responsibility to dispose it safely. This is also a role clearly assigned to the Producers in the Rules.

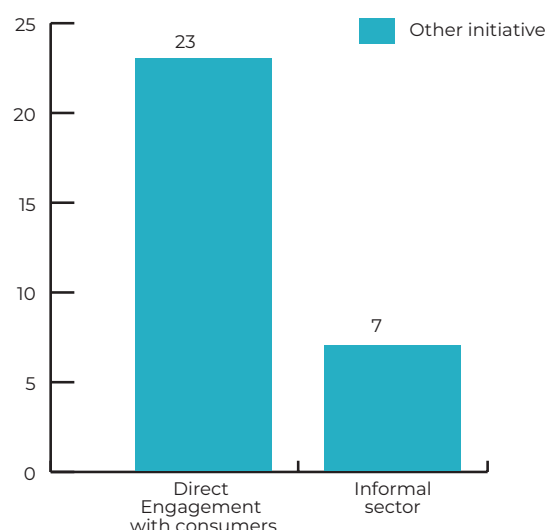


There was limited information available on this, but from what we had it appeared that some companies did use print and social media to reach out to consumers. Popular medium like Television, though, was completely ignored, which is quite surprising, given its reach to the remotest part of the country. The Producers certainly need to increase their outreach as consumer education and awareness is key to make a takeback system successful.

There are some other initiatives taken by Producers, mainly among that is direct engagement with consumers. Though we have

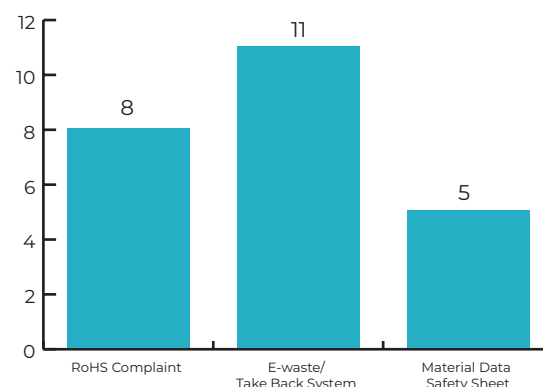
limited information on the same, it appears that the Brands are mainly engaging with bulk consumers through workshops and not really targeting the individuals. This would certainly give the volumes of e-waste collection but would completely leave out individuals who are large and growing section of users of EEE.

Informal sector is handling more than ninety percent of E-waste in India therefore engaging with them also holds much importance as they need to be imbibed into the current infrastructure of E-waste recycling in order to inculcate best practices of handling E-waste, however only 7 companies are engaging with the informal sector. Some Producers are also engaging with them, a positive as the informal sector needs hand holding and integration in the new system.



Information in the Product Booklet

Brochure or booklets are given along with almost all EEEs and can be a big tool for educating consumers. It can help in creating awareness and informing the consumers about the hazardous and toxic elements in a product. We could get information on few companies who were providing these details on the booklets. Material data safety sheet (not mandated under the Rules) can really help when the end of product reaches recyclers but it did not appear that many of the Producers are providing that information.



Most lighting companies have no takeback system and have no information in public domain regarding collection or mercury hazards in the

As CFL bulbs are negative goods (no recycling revenue), it is of utmost importance that Producers set up a collection system and finance it.

**None of these companies responded to our questionnaire*

WHY AND HOW TO REBOOT

Collection centres were found non-functional.

Conclusion and Recommendations

The first e-waste Rules were notified in India in 2011. Seven years later, unfortunately, we are still at a point where we are discussing whether the Producers have a take back system! That itself indicates the dismal situation and the fact that the law of the land is not being taken seriously by key stakeholder, i.e. Producers. The rating study has clearly revealed that e-waste management is still at a nascent stage and there is lot to be done. And here we only looked at top 54 companies! We dread to think about the efforts of smaller companies, which will include many national as well as local companies. These companies, unlike the top ones, will be smaller and may be more reluctant to set up systems for e-waste management.

The failure of Producers to set up takeback systems or to make it really functional is really appalling. It's baffling that the multinational companies who are complying with the legal framework in other countries find it difficult to do so in India. There could be multiple reasons including presence of informal sector and consumer reluctance to participate in the takeback system but the study shows that the Producers' are hardly making any effort towards countering these hurdles. Lack of functional collection network and public education goes to show that this important group of stakeholders is shying away from fulfilling their roles.

The report also indicates that there is need to strengthen the regulatory bodies and improve enforcement. Producers may be submitting plans on paper, but are they being translated on ground? – this certainly needs to be checked and verified. Our study clearly pointed out that most collection centres (listed by brands themselves) were non-functional and the companies were not able to assist consumers in disposing of their old equipment (helplines not equipped with information).

Though the study did not include in the rating Producers with only online presence, this group could be another big challenge, especially since e-commerce is growing substantially in the country. The issue is global as OECD reports point out that online sales are creating new freeriding opportunities as consumers are able to buy more easily from sellers

in other countries. These sellers often have no physical, legal entity in the country where the consumer resides, and are not registered with national or local EPR schemes. The consequence is that they avoid producer obligations and costs.

So, what is ailing EPR in e-waste management system and is there an answer? The e-waste issue is complex and probably requires many efforts. In a developing country like India, innovation will be key, which unfortunately has been limited, to address the concerns, including competition from informal quarters, huge geographical spread and lack of consumer knowledge as well as participations.

Some key recommendations:-

Enforcement of Rules- There has been strict action taken against violations to deter companies from taking the Rules nonchalantly. Government enforcement against free riders is required to ensure fairness to the Producers that carry out their EPR responsibility. This will take efforts to create national registry (list of companies putting products in the Indian market) and then identifying free riders. Presence of free riders in the current system is detrimental and requires quick resolution. For example, quick measure could include obtaining orders to close down the websites of non-compliant sellers quickly and cheaply. Such powers appear to already exist in Germany. Stricter measures should be taken in the long run.

Additional enforcement powers – In a country like India where the regulatory agencies have limited resources, it's important to consider additional enforcement powers like enabling private actions to prevent illegal online sell or identifying free riders. Third party audits could be considered. Also, coordinating effectively with bodies like customs will be crucial to stop EPR non-compliant products to be brought in and sold.

Educating and Enabling Producers- Though in this report, we rated only big companies and all of them are probably well aware of their responsibilities under the Rules, it is important for regulatory bodies to reach out to Producers, who might be unaware of their role, especially the Online Producers. Also it is important to understand reasons for effective

EPR implementation. In a vast country like India, complying across states can also be a challenge. It is important, hence, to raise awareness and simplify transactions, coordinate and harmonizing enforcement across state jurisdictions.

Campaign against non-complaint Producers

– Campaigns in public platforms against the companies who have not set up EPR system could be very effective and consumers can be asked to shun those companies. Also, procurement, especially by government agencies who are big bulk consumers, would have caused to eliminate these companies.

Carrot and stick policy- Like the companies who violate need to be punished, Producers who implement EPR in true spirit need to be rewarded. Incentives for such companies will go a long way in encouraging Producers to set up systems and help in creating effective eco system. Preference in green procurement or financial sops etc. could be considered.

Negative value E-waste – Failure of lighting companies to set up takeback system raises some grim questions. Is the current model geared towards only collection of 'positive goods'? Is that the reason that lighting companies are reluctant to implement EPR? If so, then incentivizing the collection of all e-waste, including the non-valuable or 'less profitable materials' need to be looked into. The logic behind this is rooted in the fact that a large quantum of e-waste, till now, was collected directly by recyclers, which means that unless the non-valuable parts are made valuable through an incentive that the recyclers can take advantage of, a lot of the e-waste will be recycled sub-optimally, or not at all. The Producers will need to finance this or an EPR fund could be created for the lighting products.

Orphan Products – Comparing the results with the earlier reports, we also found that a number of brands which were existing in the last edition have since then closed down. This would mean a sizeable amount of orphan products, meaning no producers to facilitate collection and recycling of that and burden on state resources. To mitigate this, there is a need to bring in EPR fund, which should be paid by Producers at the time of obtaining EPR authorization. This could act as insurance in case the Producers decide to exit the market in future.

ANNEXURE

Annexure I

Questionnaire sent to Producers

1. Do you have authorization from SPCB/CPCB under the E-waste Rules 2016?
☐ Yes ☐ No
2. Have you set up a take back system for E-waste collection as mandated under the E-waste rules 2016?
☐ Yes ☐ No
3. What sort of Take Back system do you have in place?
☐ Self
☐ PRO agency
☐ Recycler
☐ Any other
4. Have you submitted annual returns under E-waste rules 2016 for the year 2017-2018? (if yes, Please attach the copy of the same)
☐ Yes ☐ No
5. Have you achieved the E-waste collection target as per E-waste rules 2016?
☐ Yes ☐ No
6. Have you tied up with an authorized recycler for environmentally sound recycling and disposal of E-waste collected through the take back program?
☐ Yes ☐ No

If Yes then please specify the agency:

7. What all information is provided in the product booklet? (If yes then provide copy of the relevant page of any one of the product)
☐ Information on RoHS
☐ Information on E-waste mechanism of returning the end of life product/ information on collection system
☐ Material safety data sheet (Info regarding hazards, improper handling, and accidental breakage)
☐ Any other

8. In how many states/ UTs in the country do you have your collection centers/points?
9. How many total collection centers/points do you have in the country?
10. Have you done awareness on E-waste through any of the following(If yes kindly share the link or provide a copy of the same)
- | | | |
|--------------|------------------------------|-----------------------------|
| TV ads | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Print | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Social Media | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
11. Have you taken any other initiative? (Attach a document wherever applicable)
- ☐ Engagement with informal sector
- ☐ Direct engagement with consumers
- If others please specify:
12. Have you been using the Deposit Refund scheme?
- ☐ Yes ☐ No
13. Have you created any incentive for consumers to return E-waste? If yes please share the details
- ☐ Cash back
- ☐ Exchange coupon
- ☐ Gift
- ☐ Any other (please specify)

Annexure II

Brands' Website

Acer	https://www.acer.com/ac/en/IN/content/home
Apple	https://www.apple.com/in/
Asus	https://www.asus.com/in/
Bajaj Electricals Ltd.	https://www.bajajelectricals.com/
Beetel	http://www.brightstarcorp.in/
Binatone	http://www.binatonetelecom.in/
Blue Star	https://www.bluestarindia.com/
Bosch	https://www.bosch.in/
Canon	https://in.canon/consumer
Carrier	https://www.carriermideaindia.com/
Daikin	https://www.daikinindia.com/
Dell	https://www.dell.com/en-in
Electrolux	http://www.electrolux.in/
Epson	https://www.epson.co.in/
Eveready	http://www.evereadyindia.com/
Godrej	http://www.godrejappliances.com/GodrejAppliances/index.aspx
Haier	http://www.haier.com/in/
Havells	https://www.havells.com/
HP Enterprises	https://www.hpe.com/in/en/home.html
Hewlett Packard India Sales Ltd.	https://www8.hp.com/in/en/home.html
Hitachi	http://www.hitachi.co.in/
HTC	https://www.htc.com/in/
Huawei	https://consumer.huawei.com/in/phones/p20-lite/
iball	https://www.iball.co.in/home
IFB	https://www.ifbappliances.com/
Intex	http://www.intex.in/
Karbonn	http://www.karbonnmobiles.com/
Kyocera	http://www.kyoceradocumentsolutions.co.in/
Lava	http://www.lavamobiles.com/
Lenovo	https://www3.lenovo.com/in/en/
LG	https://www.lg.com/in
Micromax	http://www.micromaxinfo.com/
Mitsubishi Electric	https://www.mitsubishielectric.in/
Motorola	https://www.motorola.in/home
O General	https://www.generalindia.com/
One plus	https://www.oneplus.in/
Onida	http://www.onida.com/
Oppo	https://www.oppo.com/in/index.html
Oreva	http://oreva.com/
Osram (LEDVANCE)	https://www.ledvance.in/

Panasonic	https://www.panasonic.com/in/
Philips	https://www.philips.co.in/
Philips Lighting (Signify)	http://www.lighting.philips.co.in/home
Ricoh	https://www.ricoh.co.in/
Samsung	https://www.samsung.com/in/
Sony	https://www.sony.co.in/
Surya	http://www.surya.co.in/
Toshiba	https://www.toshiba-india.com/index.aspx
Videocon	N/A
Vivo	http://www.vivo.com/in/
Voltas	https://www.myvoltas.com/
Vu	https://www.vutvs.com/
Whirlpool	https://www.whirlpoolindia.com/
Wipro	https://www.wiproconsumerlighting.com/
Xerox	https://www.xerox.com/index/enin.html
Xiaomi	https://www.mi.com/in/index.html



Toxics Link
for a toxics-free world

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