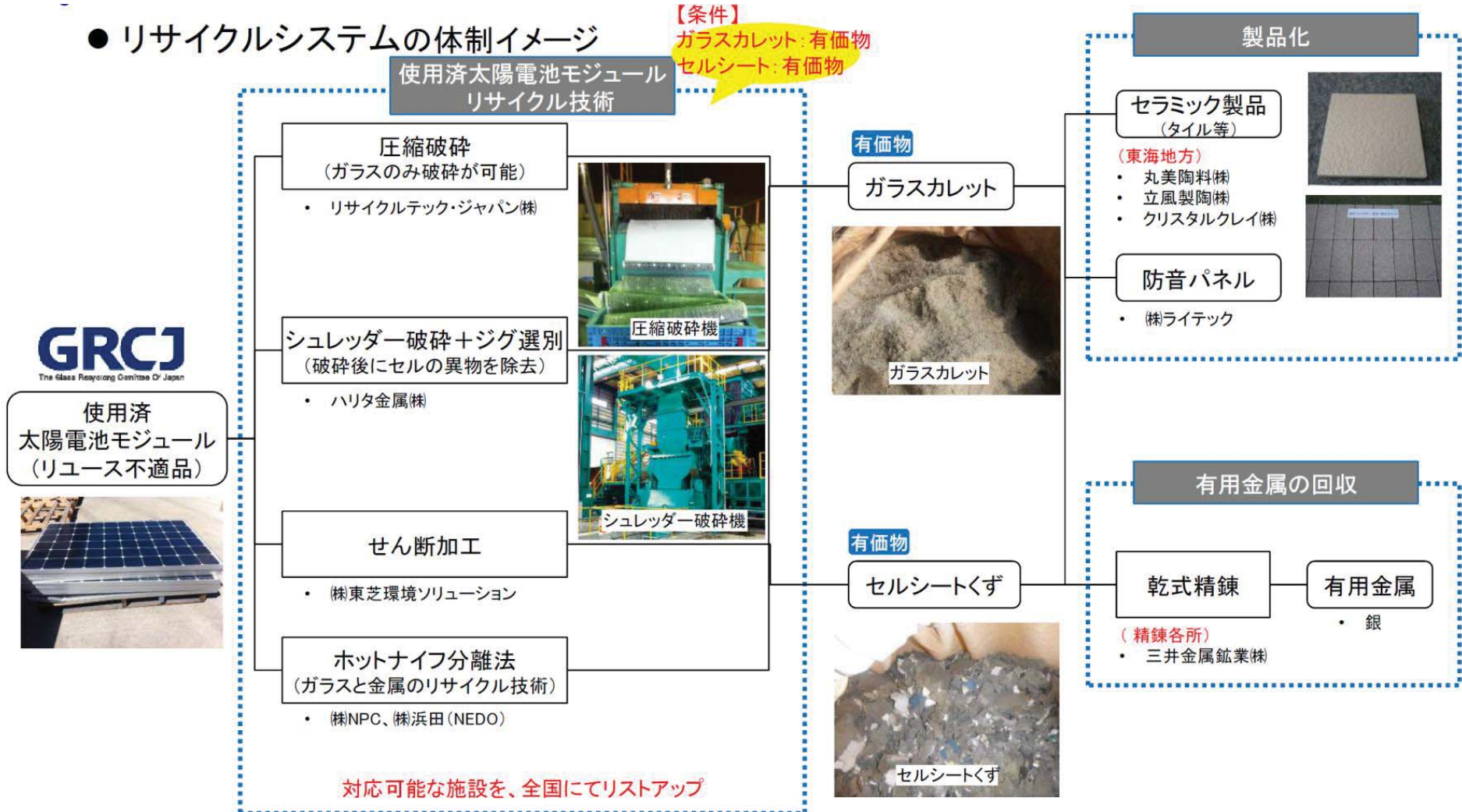


# Glass recycle of PV panel

## 太陽光パネルのガラスリサイクル

### 全国リサイクルシステムの構築に向けた検討

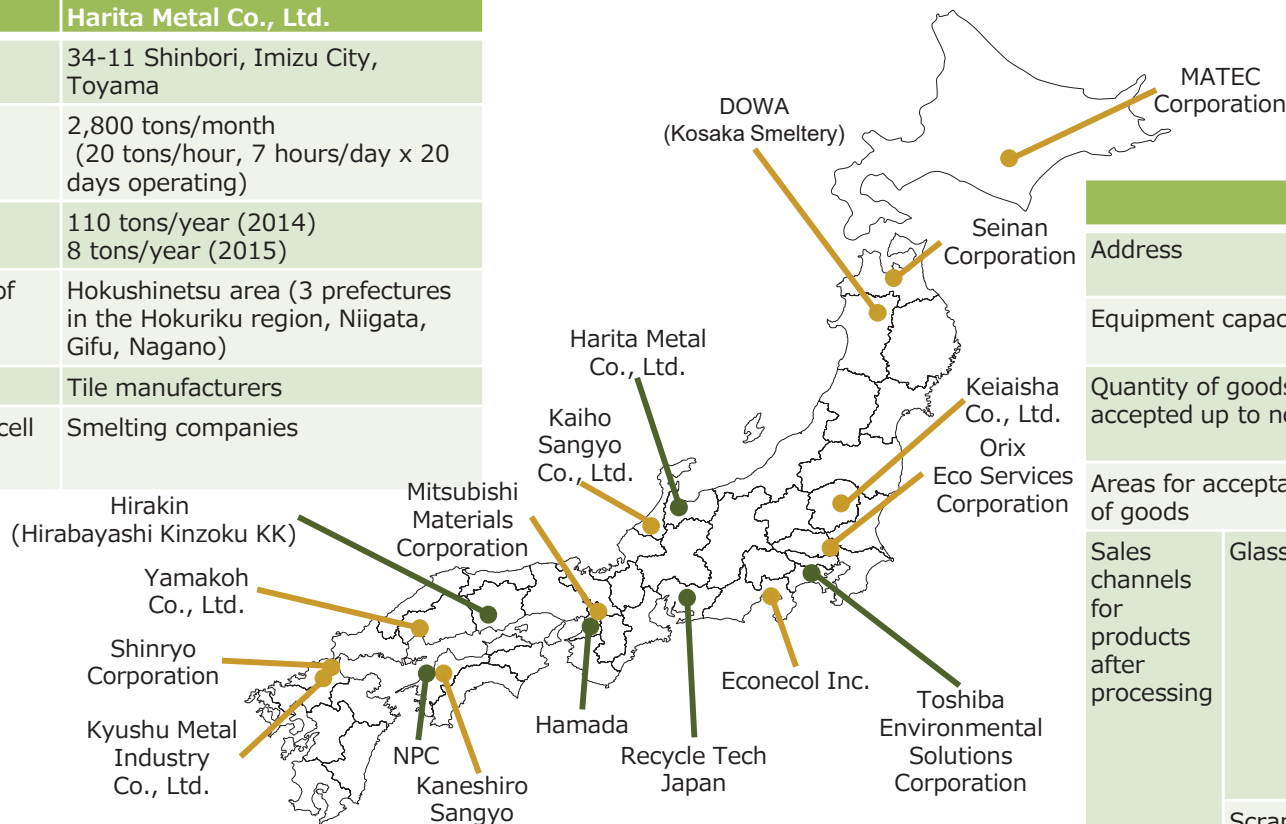
#### ● リサイクルシステムの体制イメージ



# Facilities capable of recycling photovoltaic cell modules (GRCJ GReAT6)

○ The facilities that are currently able to recycle photovoltaic cell modules as determined by the Glass Recycling Committee of Japan (GRCJ) are as follows.

Harita Metal Co., Ltd.		
Address	34-11 Shinbori, Imizu City, Toyama	
Equipment capacity	2,800 tons/month (20 tons/hour, 7 hours/day x 20 days operating)	
Quantity of goods accepted up to now	110 tons/year (2014) 8 tons/year (2015)	
Areas for acceptance of goods	Hokushinetsu area (3 prefectures in the Hokuriku region, Niigata, Gifu, Nagano)	
Sales channels for products after processing	Glass	Tile manufacturers
	Scrap cell sheets	Smelting companies



- Already accepting goods for recycling
- Has the capability to accept goods for recycling

Toshiba Environmental Solutions Co.		
Address	20-1 Kansei-cho, Tsurumi-ku, Yokohama City, Kanagawa	
Equipment capacity	Crushing capacity 44 tons/month/machine	
Quantity of goods accepted up to now	180 tons/year (10,000 sheets/year) Note: crystalline system 250W class Average for 2013 - 2015	
Areas for acceptance of goods	Head office: Kanto region Affiliates: Nationwide	
Sales channels for products after processing	Glass	(1) Damaged goods as well as modules with high resource value (with large quantities of Ag) → Crushed and provided to smelting companies as resources (2) Undamaged modules → Separated and recycled as sheet glass (currently in development)
	Scrap cell sheets	Separated and then recovered as battery powder (in a powdered state) and provided to smelting companies as a resource

Hamada Co., Ltd. / NPC Inc.		
Address	2889 Nishihabu-machi, Matsuyama-shi, Ehime	7-5 Keihinjima 2-chome, Ota-ku, Tokyo
Equipment capacity	86.4 tons/month (4.32 tons/day x 20 days)	86.4 tons/month (4.32 tons/day x 20 days)
Quantity of goods accepted up to now	10 tons/year	—
Areas for acceptance of goods	Nationwide but primarily the Kinki region	Nationwide but primarily the Kanto region
Sales channels for products after processing	Glass	Glass manufacturers (anticipated)
	Scrap cell sheets	Smelting companies
Notes	Research institution owned by NEDO (modules are provided as research materials)	Used in prototypes Acquisition of intermediate processing permit expected in April 2017 or thereafter

Recycle Tech Japan Co., Ltd.		
Address	204 Jinguji 1-chome, Minato-ku, Nagoya City	
Equipment capacity	642.6 tons/month	
Quantity of goods accepted up to now (tons/year)	2014 Approx. 54 tons/year Approx. 2,700 sheets 2015 Approx. 36 tons/year Approx. 1,800 sheets	
Areas for acceptance of goods	Nationwide	
Sales channels for products after processing	Glass	Cullet trading companies (for use as raw material for glass wool)
	Scrap cell sheets	Rare metal recycling companies