

OpenADR Alliance Webinar : “OpenADR adoption in Japan”

Recent OpenADR Developments in Japan

April 21, 2021 (US Pacific Time)

April 22, 2021 (Japan Time)

Moderator : Hideo Ishii

*Advanced Collaborative Research Organization
for Smart Society (ACROSS)*

Waseda University

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Energy Resource Aggregation Business Forum

&

Chief Director, ADR Japan



AGENDA

- Japanese Energy Market -Optimum Use of Distributed Energy Resources for Demand-side Response –

by **Yasuhiro SAKUMA**

*Deputy Director, Advanced Energy Systems and Structure Division
Agency for Natural Resources and Energy
Ministry of Economy, Trade and Industry*

- V2G Demonstration: Simultaneous Control of the Peak Shift and the Frequency Adjustment Considering the Daily Vehicles Operation

by **Yukio Nezu**

Toyota Tsusho Corporation

- Other Topic

by **Hideo Ishii**

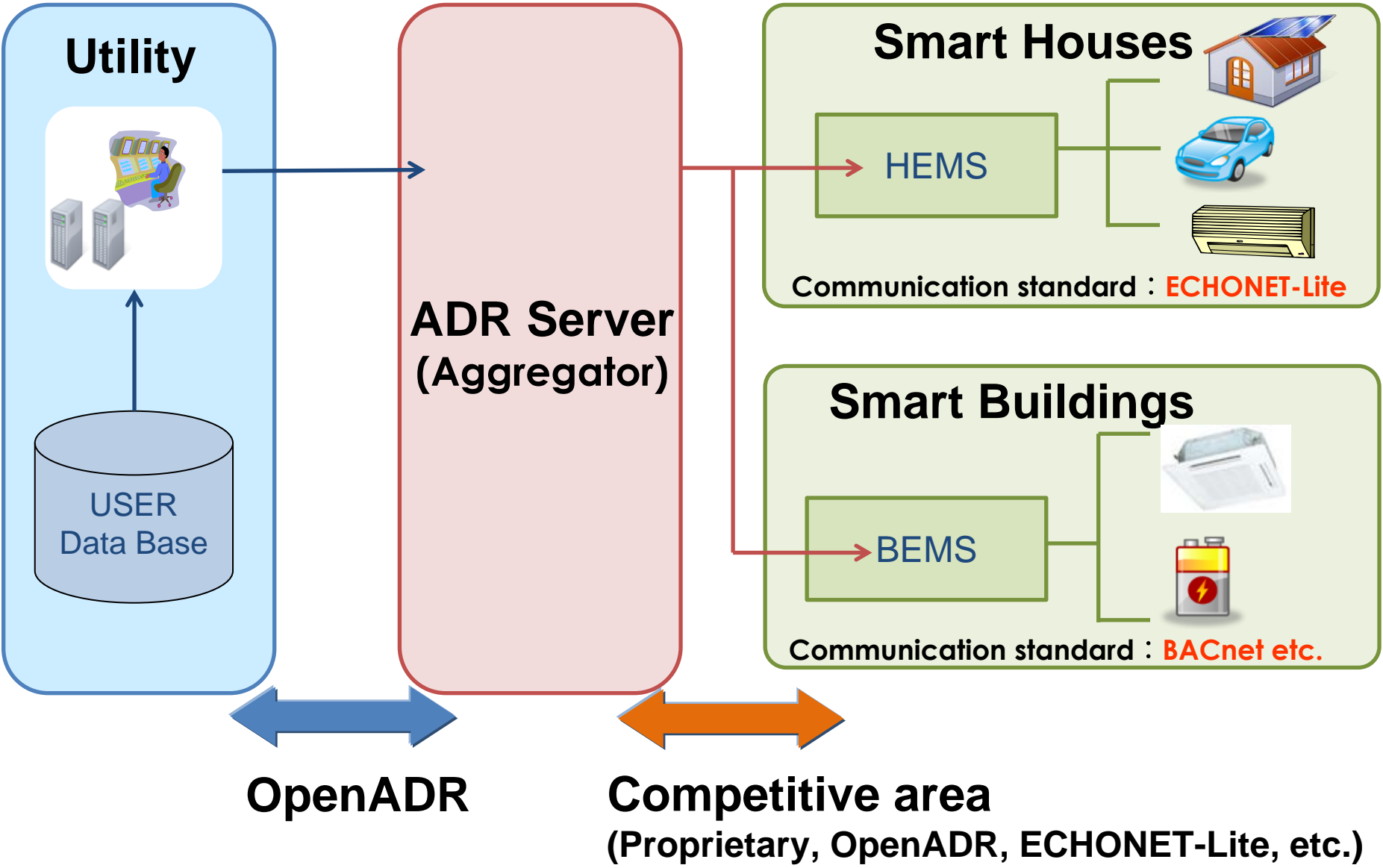
Waseda University

**For questions and comments,
please use chat-function and
write them in texts.**

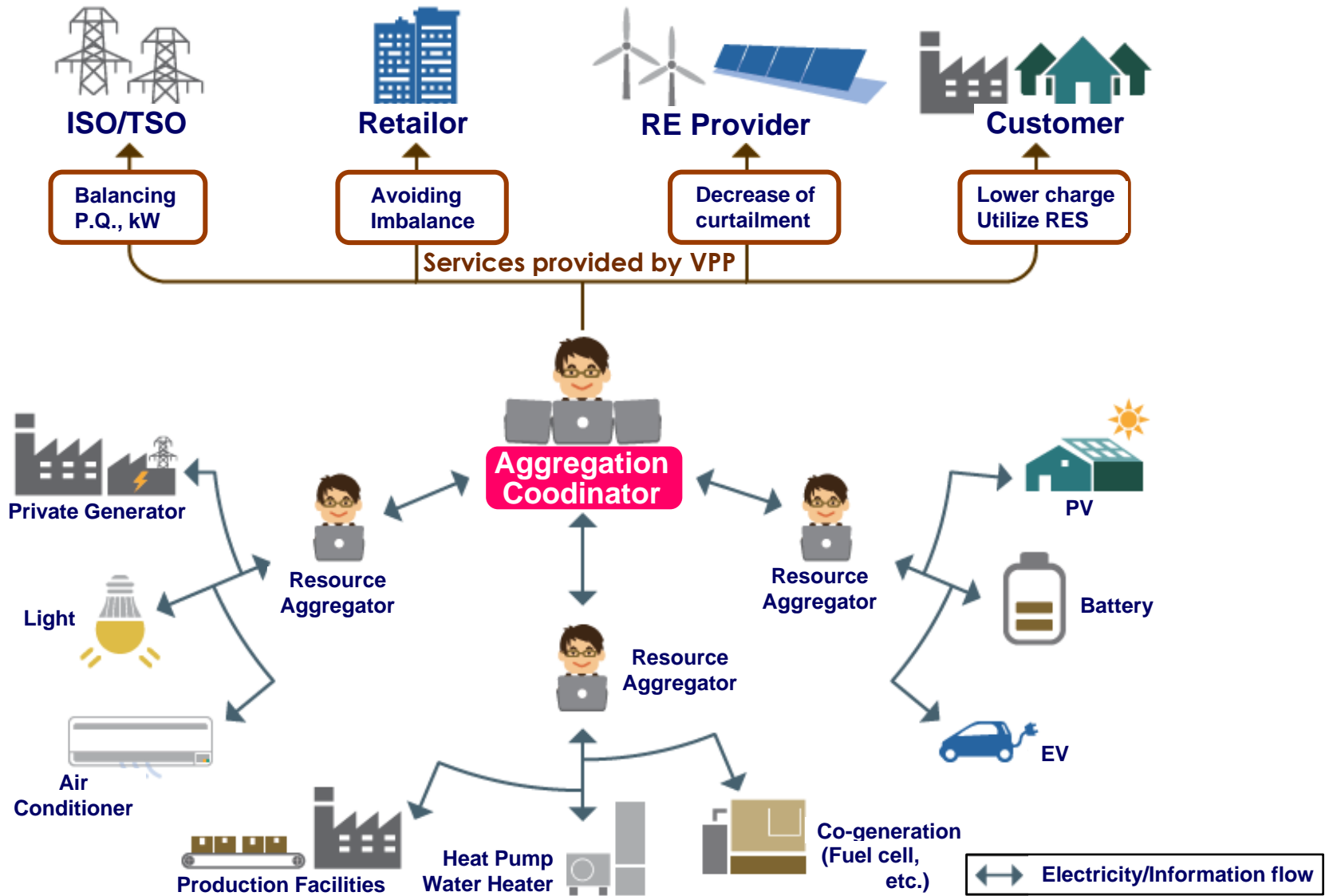
History of DR/VPP in Japan

- 2011.3.11 Great East Japan Earthquake, Fukushima Nuc.-Accident
→ Rolling Blackout in TEPCO Area,
Nation-wide campaign for saving kWh
- 2012.6 (METI) DR Initiative :
“Smart House & Building Standardization and Business Study Committee”
 - ✓ DR Use Cases
 - ✓ Communication Standards :
ECHONET Lite (HAN),
OpenADR(TSO-Aggregator)
- 2016.1 (METI) “Energy Resource Aggregation Business Study Committee”

Standardization of Communication Interface for DR (2013-)



VPP National Demonstration Project (2016 -)



VPP National Demonstration Project (2016 -)



WASEDA University



OpenADR

Deployed in operation of
"reserve power" by TSOs



Aggregation Coordinator

**OpenADR,
Proprietary**

Resource Aggregator



Resource Aggregator



Resource Aggregator



Categories and requirements in Balancing Market

	Primary (GF)	Secondary-1 (LFC)	Secondary-2 (EDC-H)	Tertiary (EDC-L)	Tertiary (Slow Res.)
Name*	FCR	S-FRR	FRR	RR	RR-FIT
Order/Control	—	Order/Control	Order/Control	Order/Control	Order
Comm. Line	—	Private NW, etc.	Private NW, etc.	Private NW, etc.	Dispatch system
Monitor	on line	on line	on line	on line	on line
Response	< 10 sec	< 5 min	< 5 min	< 15 min	< 45 min
Duration	> 5 min	> 30 min	> 30 min	3 hr	3 hr
Max. bidding	As much as possible	As much as possible	As much as possible	As much as possible	As much as possible
Min. bidding	5MW	5MW	5MW	5MW	1MW
Order period	autonomous	0.5~10sec	1~a few min	1~a few min	30 min
Monitor period	1~a few sec	1~5 sec	1~5 sec	1~5 sec	TBD
Bidding unit	1kW	1kW	1kW	1kW	1kW
Category	up / down	up / down	up / down	up / down	up / down



תודה
Dankie Gracias
Спасибо شكراً
Merci Takk
Köszönjük Terima kasih
Grazie Dziękujemy Děkojame
Ďakujeme Vielen Dank Paldies
Kiitos Tänname teid 谢谢
Thank You Tak
感謝您 Obrigado Teşekkür Ederiz
Σας Ευχαριστούμ 감사합니다
Благодарю Вас
Bedankt Děkujeme vám
ありがとうございます
Tack

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