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GRID-CONNECTED
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IN SOUTH ASIA**

 23 March

 10:00-11:35 a.m. (IST)



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Regulatory Frameworks for DPV-plus-Storage

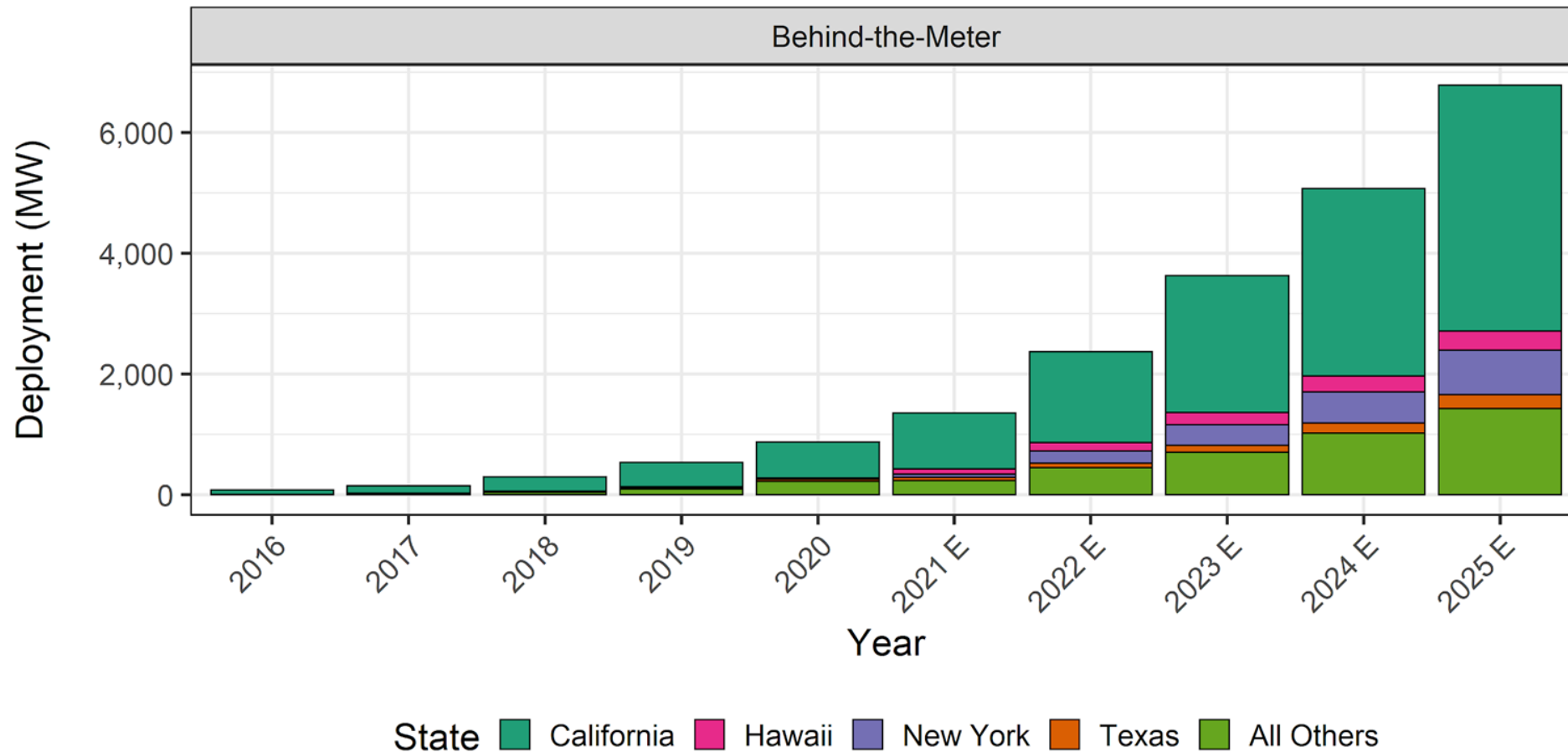
Scaling Grid-Connected Distribution Solar in South Asia, South Asia Energy Series | March 2021
Carishma Gokhale-Welch | National Renewable Energy Laboratory



Outline

- Regional context
- Why develop DPV-plus-storage regulations?
- How to approach program design for DPV-plus storage systems?
- Closing thoughts

U.S. Behind-the-Meter Storage Market Trends



Source: Wood Mackenzie P&R/ESA (2020)

Regional Context

Reliability concerns

- Long history of deploying customer generation and storage
- Storage systems primarily 'passive' in the past

Financially distressed DISCOMs

- Strong cross-subsidization scheme as social policy
- System adoption for large customers reduces utility 'cross-subsidy' revenue

PV Compensation

- NEM is common compensation mechanism in the region, with some jurisdictions also considering Net Billing

Gov't initiatives

- Aggressive RE goals include specific targets for DPV
- Initiatives for real-time market and advanced metering deployment

South Asia is poised to become leading market for 'grid-interactive' customer storage. This can maximize value from DPV and help DISCOMS cost effectively manage the grid.

Why develop DPV-plus-storage regulations?

Consumers

Allows interconnection of storage system with DPV, potentially providing additional value to the consumer

Provides consumer additional DER options with added resilience benefits

Electric Grid

Storage can allow for higher levels of DPV without adverse technical impacts

DPV systems will become more grid-friendly with storage

Brings additional investment into the electric grid from new sources of capital

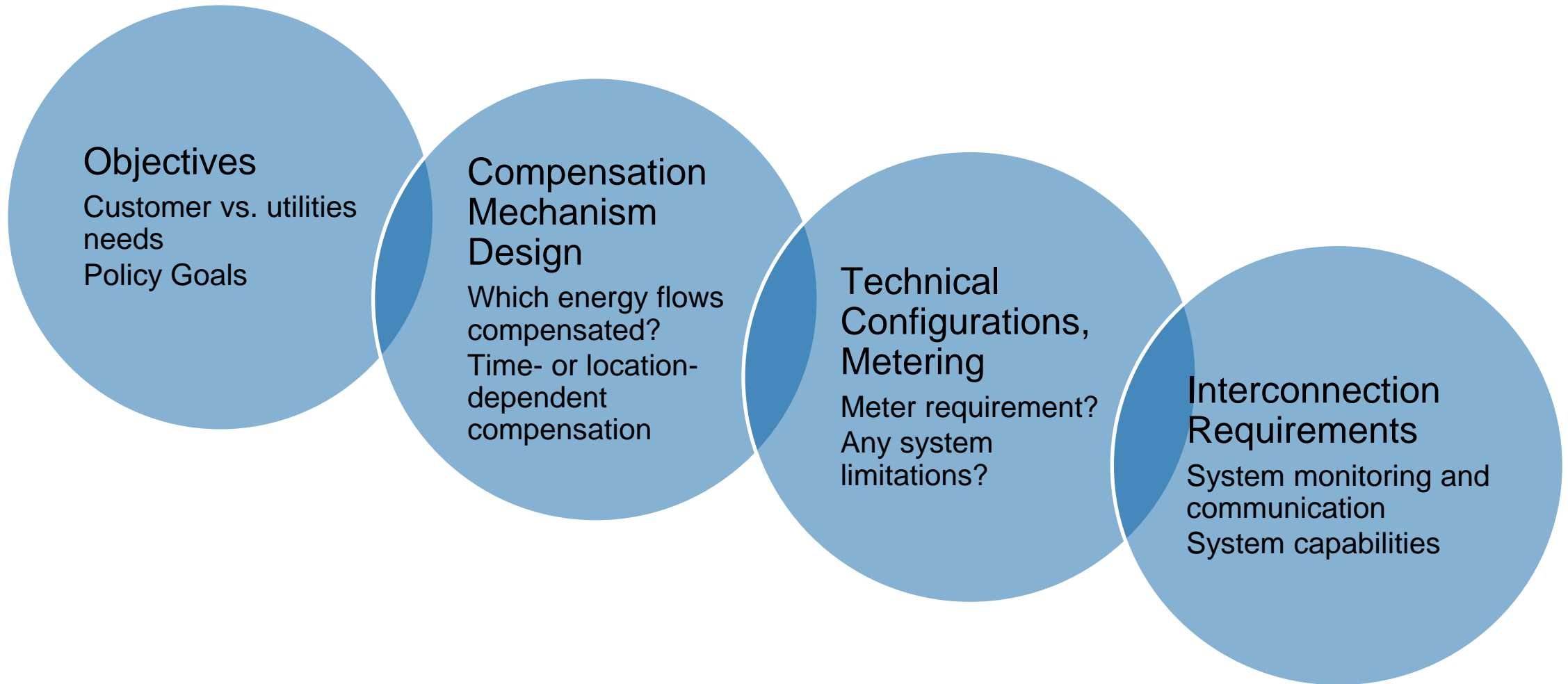
DPV-plus-storage can be capacity resource for DISCOMs, potentially offsetting infrastructure investments

Government

Will help in achieving DPV goals

Job creation and economic activity

How to approach program design for DPV-plus storage systems?



Closing thoughts



Thank you!

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Resources:

An Overview of Behind-the-Meter Solar-plus-Storage Program Design: with Considerations for India (Zinaman et al, 2020)

<https://www.nrel.gov/docs/fy20osti/74131.pdf>

Greening the Grid: <https://greeningthegrid.org>



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