

ACEEE Intelligent Efficiency Conference

Session: **Utility Grid Load Integration and
Balancing**

December 7, 2015

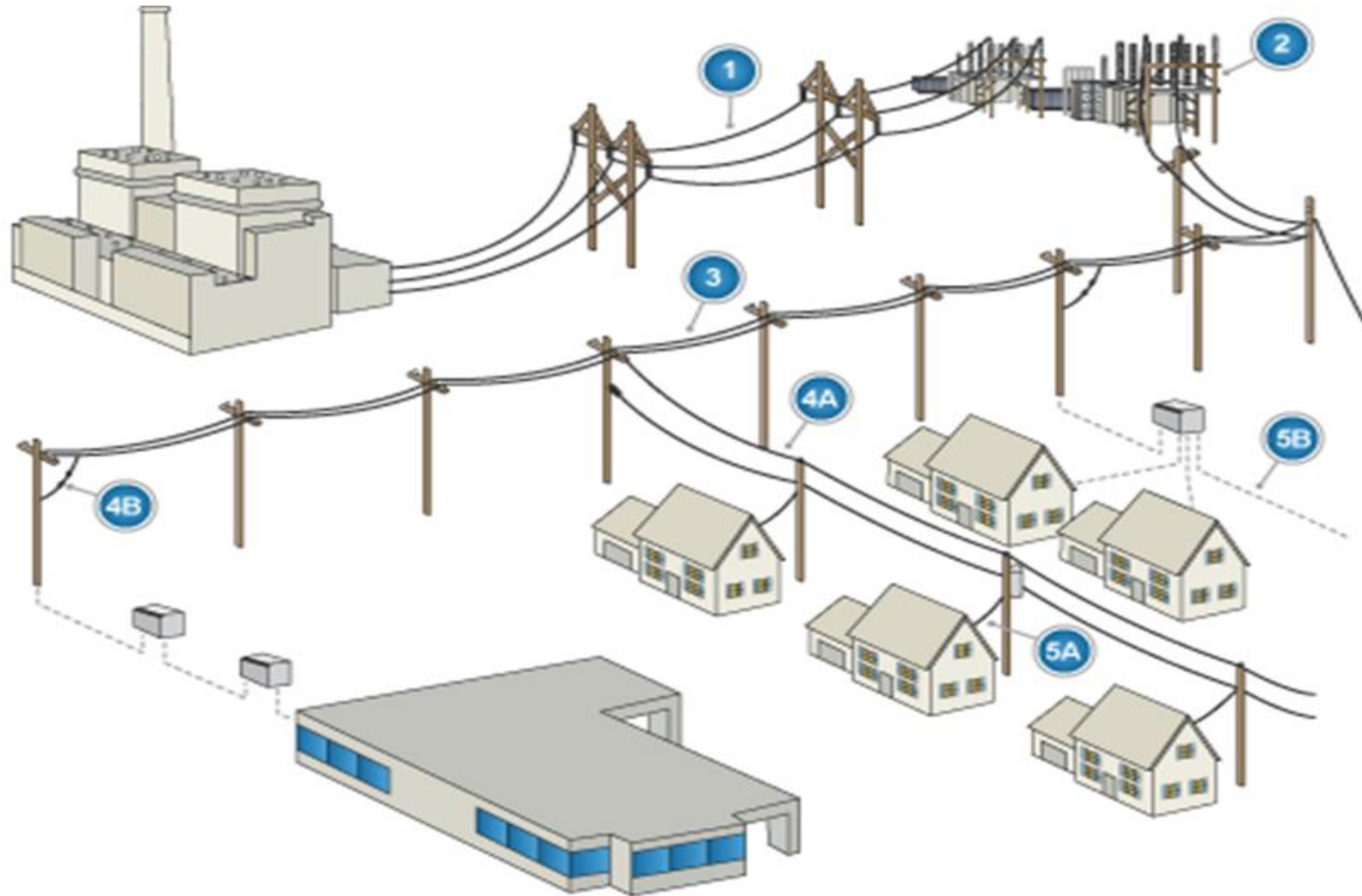
Moderator: David Dobratz

Supervisor - Energy Efficiency, Eversource

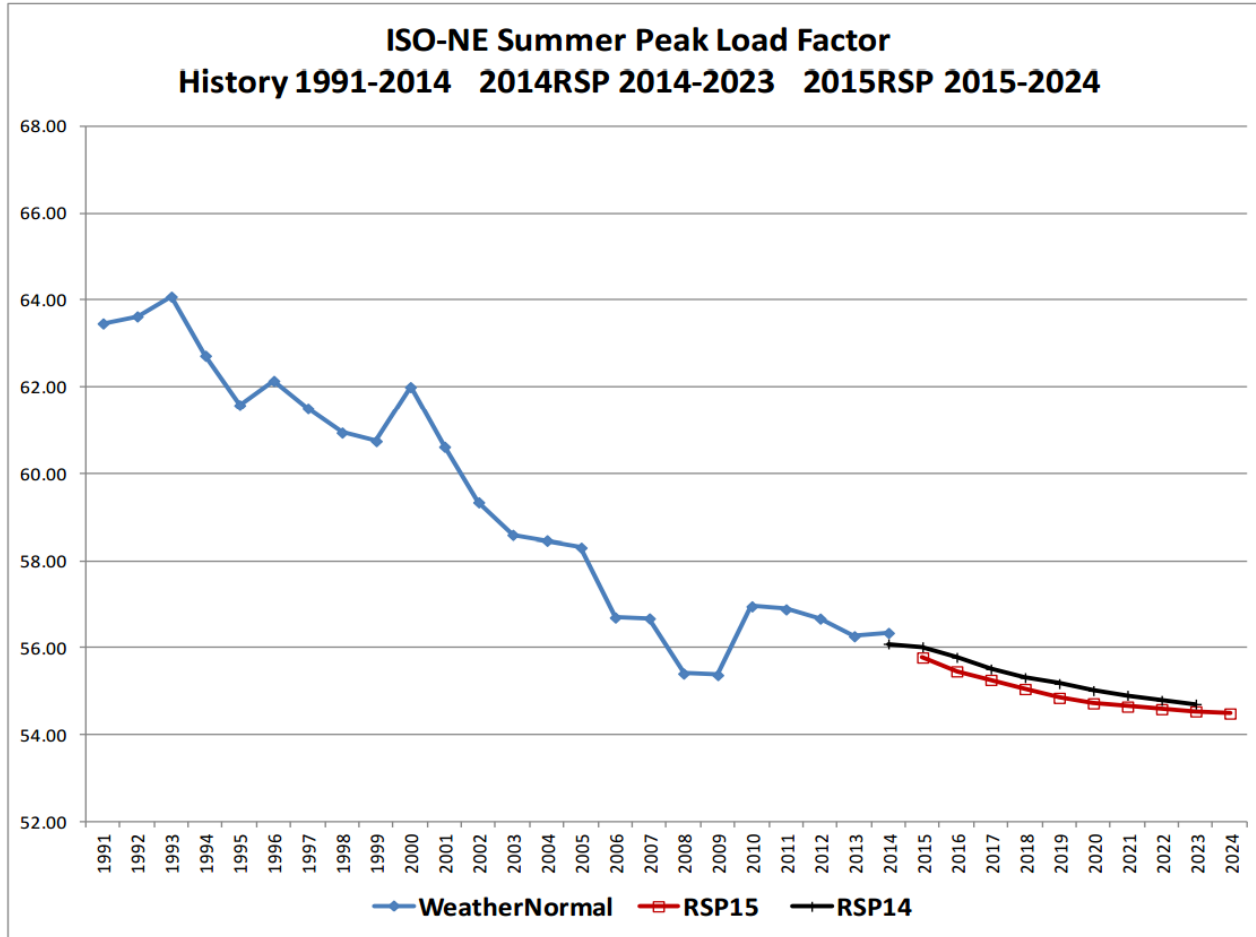


Empowering you to make
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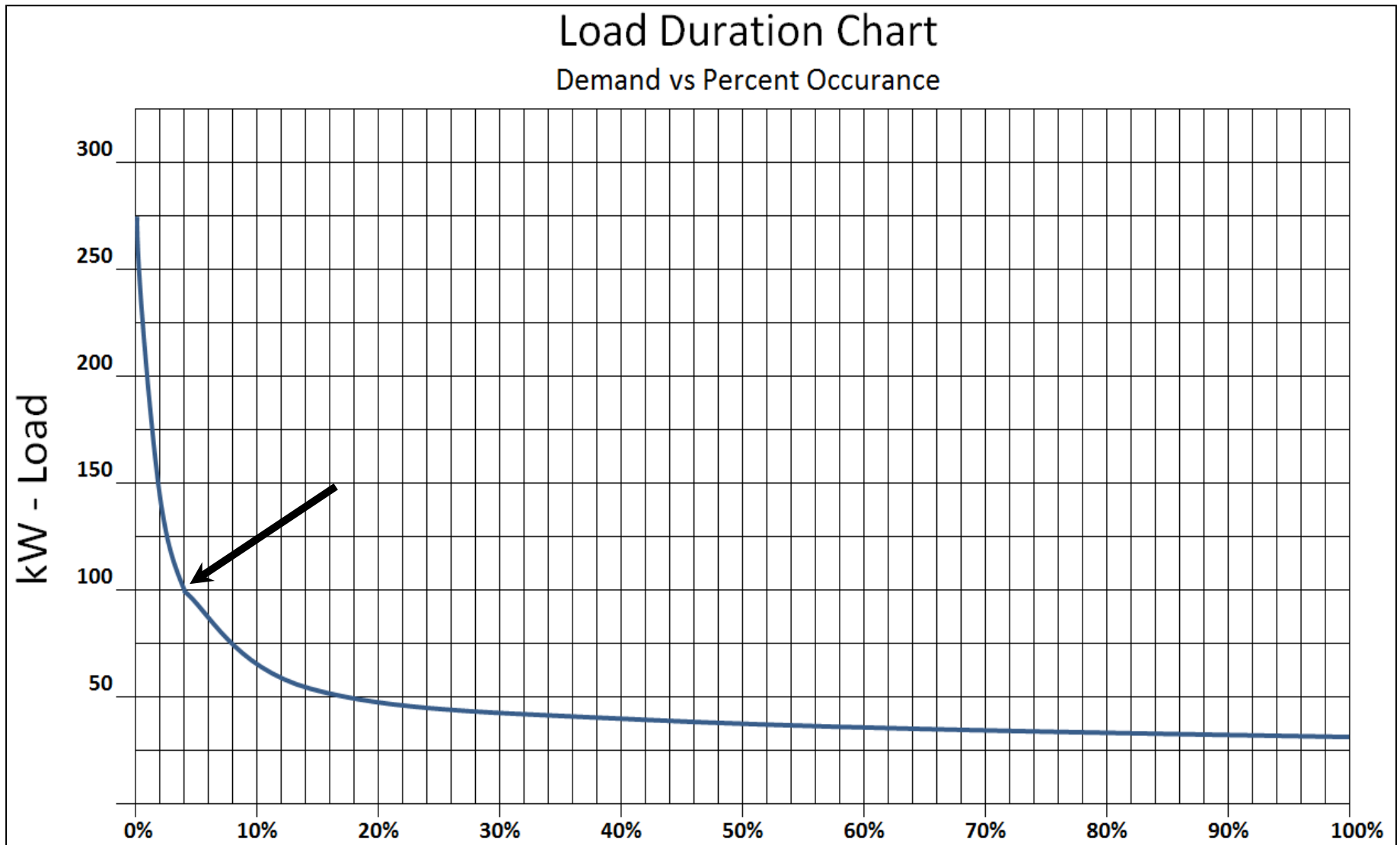
Session Overview



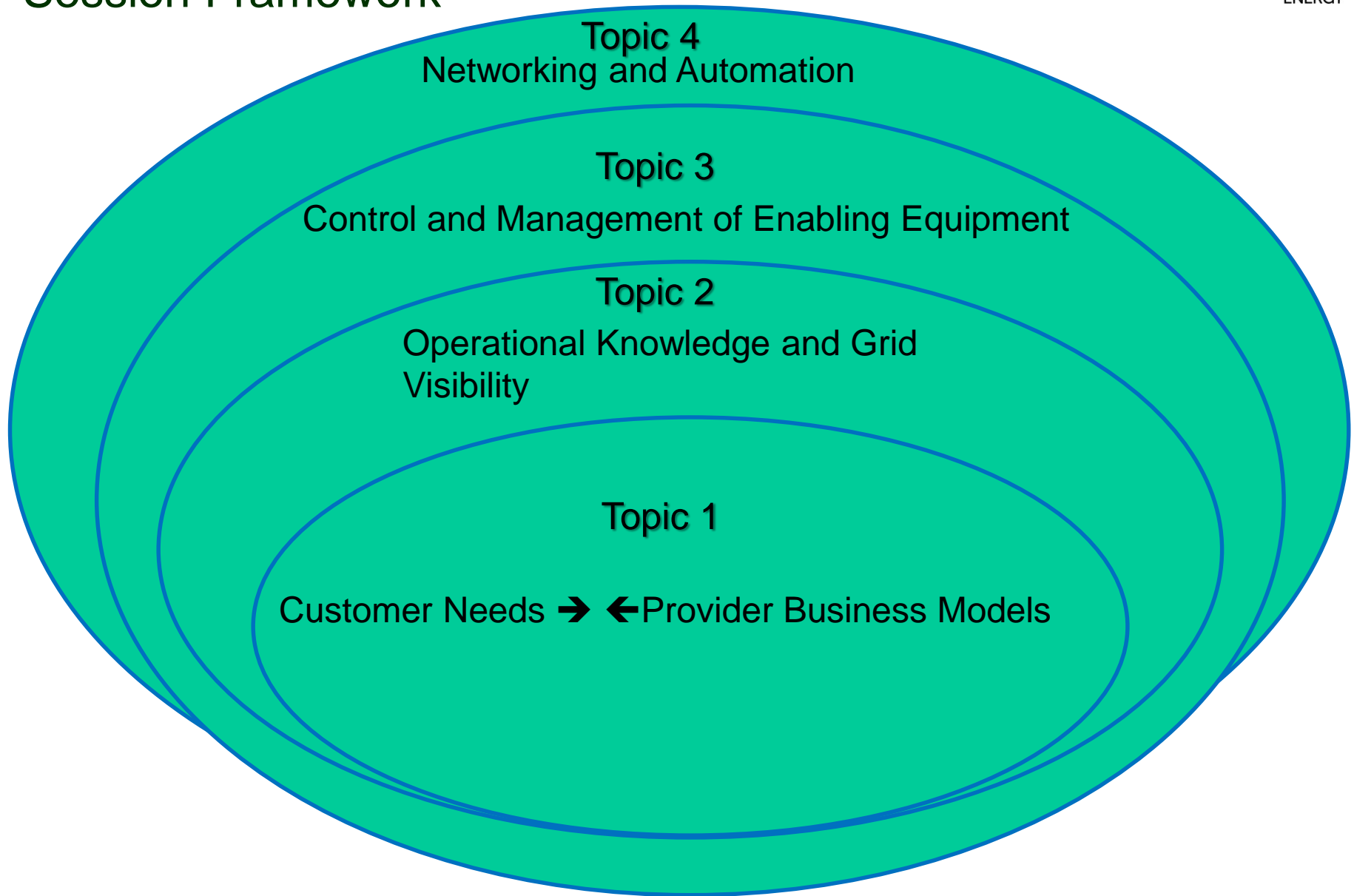
Dynamic Nature of Load – Load Factor



Dynamic Nature of Load – Load Duration



Session Framework



Session Overview - Appendix

- System operation issues, including load balancing, voltage regulation, frequency regulation and supplying power during demand periods, are inherently connected to and by their nature, are mostly associated with load usage characteristics. However, this perspective is not necessarily obvious but, is intuitive to understand.
- Demonstrate the causality by a) describing and showing the load factor curve and an example load duration curve, then, b) profess the hypothesis that frequency and voltage functions and the potential for their mitigation occurs when loads are operating on the more vertical portion of the curve where not base load equipment is operating.
- This session focuses on a framework or operational construct that could facilitate the integration of DERs into the grid for load balancing purposes by utilizing information and communications technologies. Graphic: Concentric circles and topic 4 graphic of networked monitoring, communications and dispatch.