

Advanced Dispatch Optimizer System Roadmap Report Summary

Prepared by Tapestry for
NG ESO

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Executive Overview

- In Dec 2021, Tapestry and NGENSO executed a Research and Development Collaboration agreement to X
- This presentation provides a high-level summary of **The Advanced Dispatch Optimizer System Roadmap Report** prepared by the Tapestry Team, and covering the 2nd milestone outlined in our agreement to provide a recommendation on an approach to developing an Advanced Dispatch Optimizer system and a high-level roadmap for such development.
- The Report focuses primarily on near-term power system dispatch operations which includes the period from four hours ahead through to real time dispatch operations.

Meet the Tapestry Team



Andy Ott

Director, Technical Operations

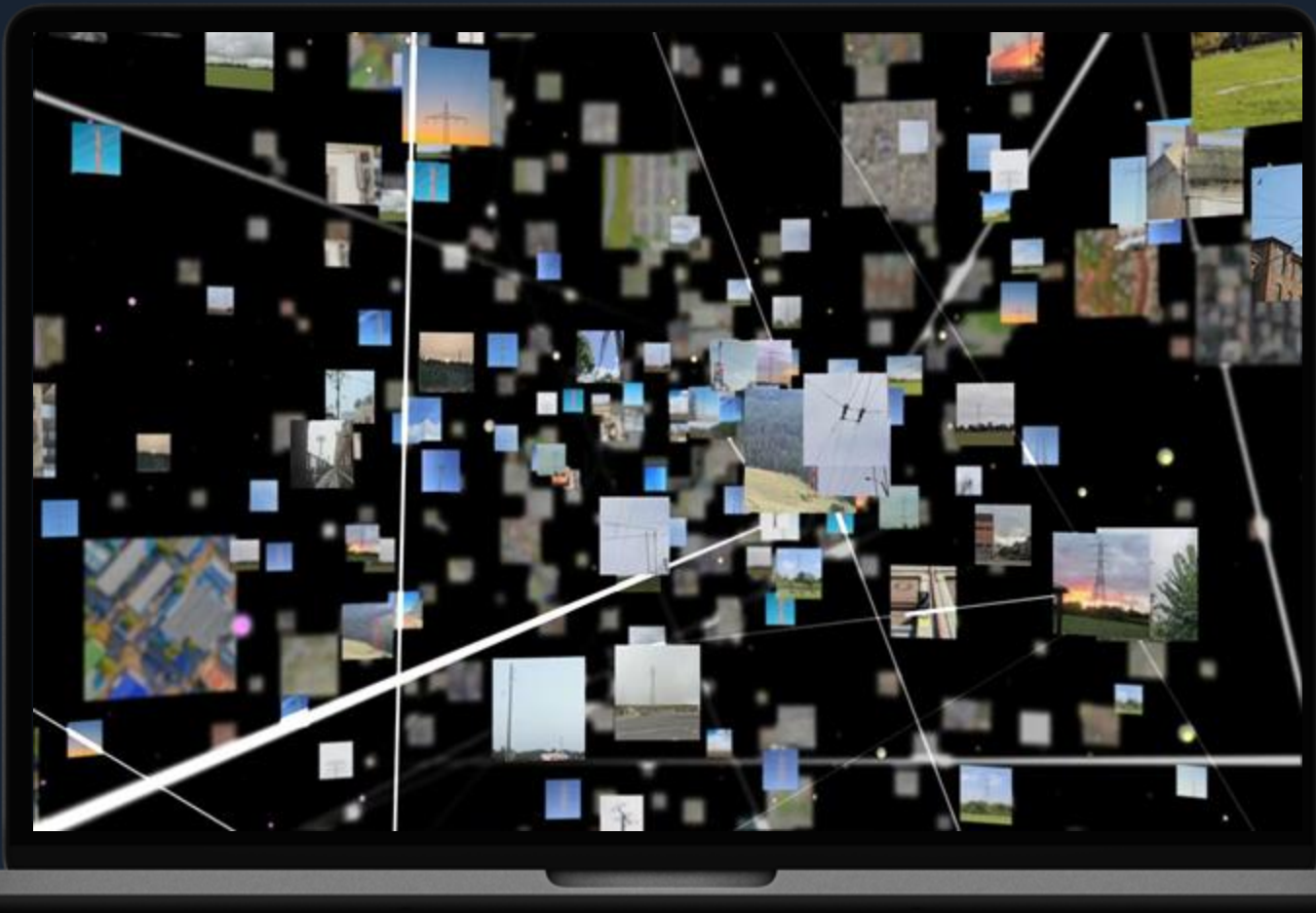
Andrew Ott leads the Technical Operations at X's moonshot for the electric grid. He is an International expert in Power system operation, electricity market design and power system engineering. Formerly served as President and CEO of PJM Interconnection, the largest power grid in North America and the largest electricity market in the world. Designed PJM's market and systems. Currently serves on corporate boards and as a strategic advisor to energy companies.



Page Crahan

Director, Commercial

Page Crahan leads Partnership and Commercial efforts at Tapestry, X's moonshot for the electric grid. Page built partnerships with Home Depot, Nest, BMW and the Sierra Club to bring rooftop solar to market at Sunrun, the largest residential solar provider in the U.S. Prior to X she was Co-CEO and founder of Clarus Power, a venture backed residential solar tech platform. A member of the U.S. State Department's TechWomen, Page is an expert in business model innovation and scaling hyper-growth teams globally.





Tapestry

Weaving together the technologies, information, and partners needed for clean, reliable, and affordable electricity.

Our team at X, The Moonshot Factory, is creating a single virtualized view of the electric grid and novel computational tools to predict and simulate what may happen on this increasingly complex system to support and accelerate decarbonization.

We have active strategic innovative partnerships in Chile, New Zealand, South Africa, and the U.S.A.

Key Features of the Advanced Dispatch Optimizer

Automated Insights

Though Adaptive
Machine Learning input
data models

Heightened Visibility

Probabilistic trajectories
of various system states

Time Coupled Dispatch Optimizer

Will orchestrate /
coordinate thousands of
DERs to create synthetic
response and continuous
ramp capability

Multidimensional Visualization

Transform operator
interactions and create
real-time situational
awareness

Automated Decision Support Tools

Enhance or automate
operator decisions

Automated Performance Monitoring Modules

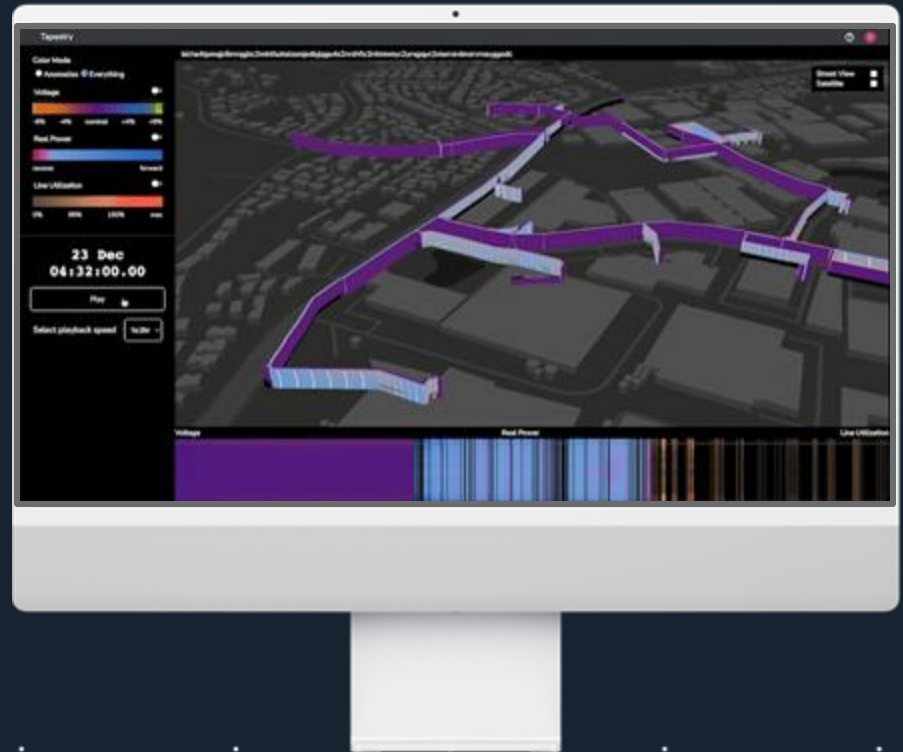
Enhance optimizer and
operator performance
over time

Creating a dispatch process that is comprehensive, accurate and intuitive

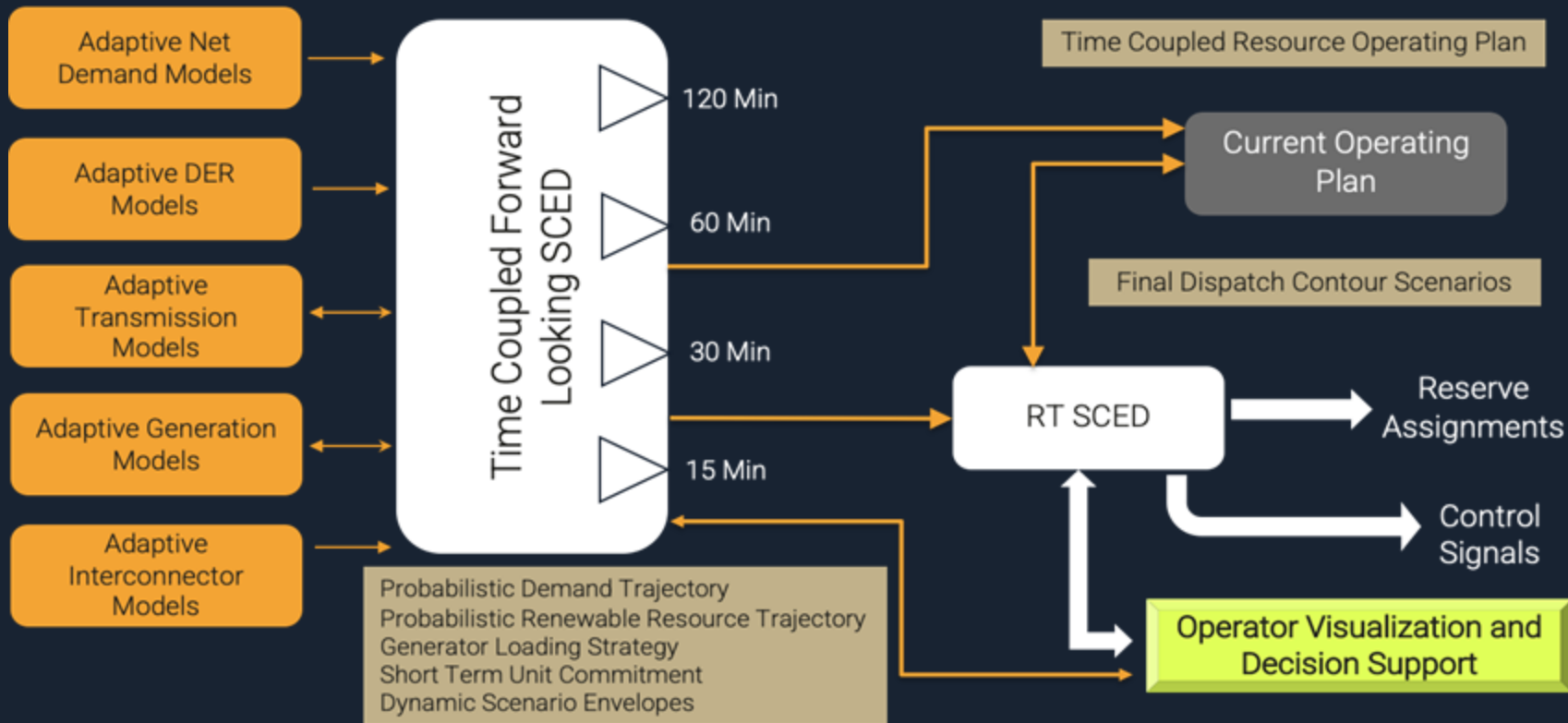
The functional components of the Advanced Dispatch Optimizer System:

- Machine learning-enhanced adaptive models and advanced digital modeling
- Optimization Engines
- Operator Visualization and Decision Support

This is one example. Imagine if your whole control room had this level of visibility.



The Advanced Dispatch Optimizer System





Benefits to this approach

- Holistic highly automated solution
- Modular approach adaptable over time
- Incremental development approach leverages and enhances existing project work
- Adaptive module performance improves over time
- Harness and leverage flexibility of thousands of DERs to enhance system resilience

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Thank you!

Q&A